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OF

PORTO RICO

FOR 1911

PREPARED AND COMPILED UNDER DIRECTION OF

HON. M. DREW CARREL

SECRETARY OF PORTO RICO



SAN JUAN. P. R. BUREAU OF SUPPLIES, PRINTING, AND TRANSPORTATION 1912

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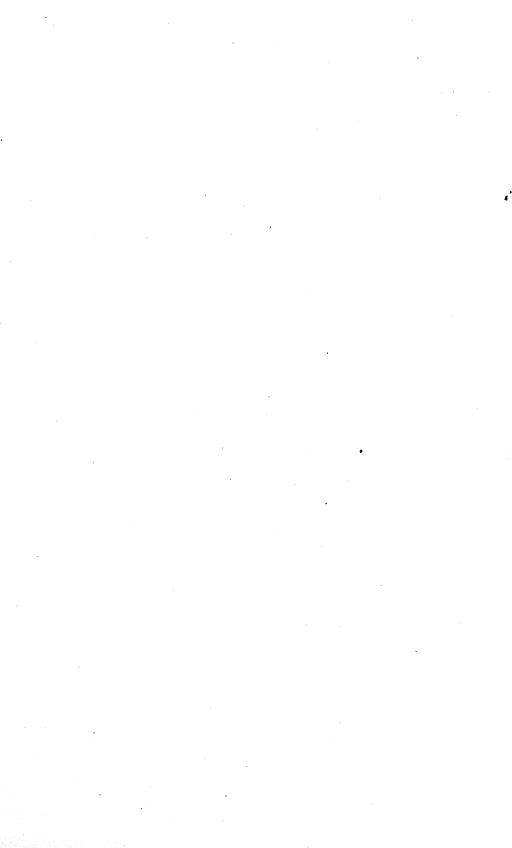
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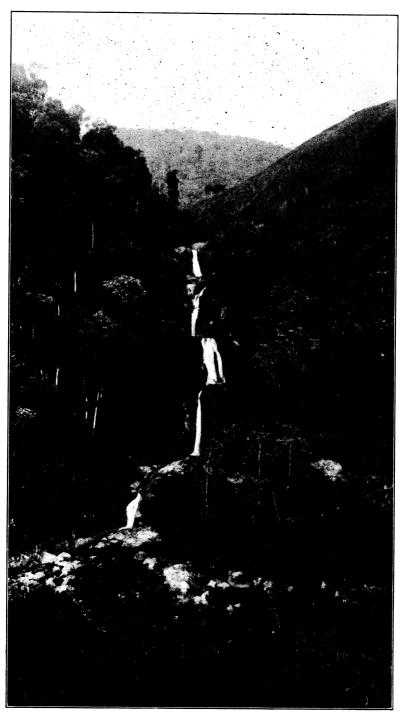
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BUREAU OF SUPPLIES, PRINTING, AND TRANSPORTATION
1912





A small part of Porto Rico's "never-ending panorama" of mountain view.

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PREFACE.

►EN years ago comparatively little was known outside of the Island, except in Spain, concerning Porto Rico. Since then the Island has attracted more attention from year to year, and much information about it has been furnished by official reports. There are, however, many things of general interest to the public that cannot properly be treated in such reports, and it has been customary for the Secretary of Porto Rico to publish such information in the form of a Register of Porto Rico from time to time, as changes in conditions made certain of the data presented in previous registers obsolete. In brief, the purpose of the publication is to present in concise form information of interest to the public concerning Porto Rico, its geography, climate, government, commerce, finances, etc., and to so familiarize its readers with facts in general that they will be in a position to know where further data, too detailed for the limitations of this publication, regarding any subject in which they are especially interested, may be obtained. The first Register was published in 1901, another in 1903, and the last one in 1905, and sufficient time having elapsed to make it seem advisable, a new Register was published in The supply of copies of this last edition was soon exhausted, and in order to be able to comply with numerous unfilled requests for copies, it was decided to make a reprint, with current data corrected up to the end of the fiscal year ending June 30, 1911, which is herewith presented.

The information contained in this Register has been compiled from official reports and other authentic sources, and for data on special subjects credit is due officials of the respective branches of the Insular and Federal Governments; and especially for those on climate, agriculture, and irrigation to Dr. O. L. Fassig, United States Weather Bureau; Dr. D. W. May, United States Department of Agriculture; and Mr. J. W. Beardsley, engineer in charge of the Porto Rican irrigation project.

M. Drew Carrel, Secretary of Porto Rico.



CHAPTER I.

INTRODUCTION.

General Description of the Island of Porto Rico-Geography and Topography.

ALTHOUGH Porto Rico is one of the numerous islands constituting the chain which forms the north and eastern boundaries of the Caribbean Sea, it presents many characteristics different from the other Antilles. It has been referred to by one writer as "one of the most lovely of all those regions of loveliness which are washed by the Caribbean Sea; even in the Archipelago it is distinguished by the luxuriance of its vegetation and the soft variety of its scenery."

No other island, in proportion to its area, is endowed with more scenic beauty, greater fertility of soil, or more numerous and certain elements of prosperity. Its location in the Tropics, and yet within easy reach of the large cities and great markets of the Eastern States, is a natural condition that is exerting and must continue to exert a potent influence upon the industry and commerce of the Island.

Its delightful climate and perfect five-months' winter season; its unsurpassed views of mountain, valley, and sea, beautiful beyond description; the romance, quaint attractiveness and historic interest of its ancient forts, churches, cathedrals, and bridges—all made accessible by a magnificent system of roads extending around and over the Island, which has been in course of construction for half a century—offer natural attractions to the tourist, surpassed by those of no other winter resort on this side of the Atlantic.

Porto Rico is the nearest territory in which citrus and tropical fruits of all kinds can be safely produced and shipped in their natural condition to the Eastern markets of the United States, or from which those markets can be supplied during the winter months with fresh produce.

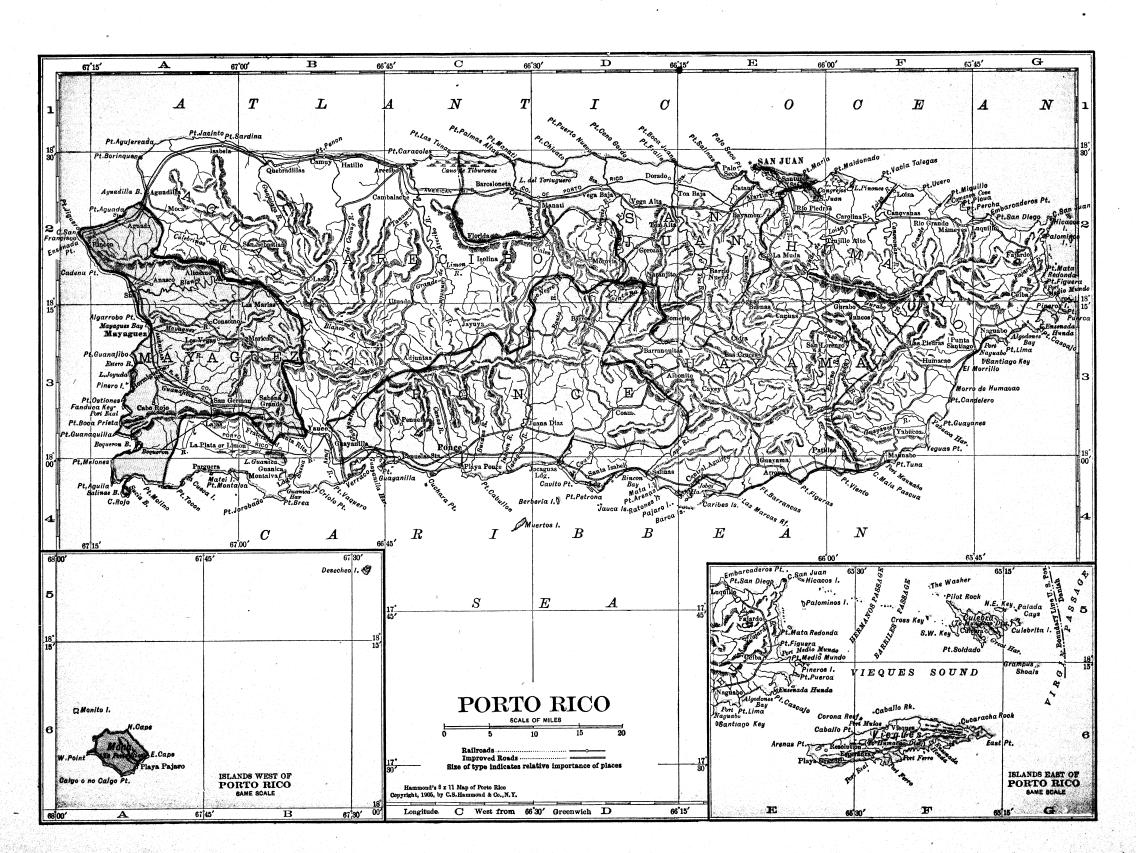
The Island is located on the direct line between the principal ports of Europe and the Panama Canal and Caribbean ports. The course of vessels plying between points on the Caribbean Sea and New York lies through the Mona Passage, within sight of the coast of Porto Rico.

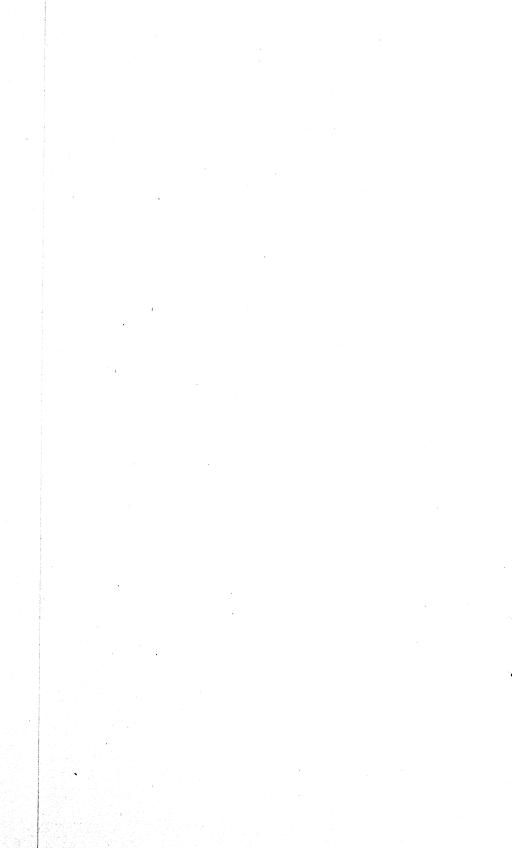
According to the census of 1910, the Island, with its area of but 3,606 square miles, had over 1,120,000 inhabitants, making it the most thickly populated of any of the subdivisions of American territory, except Rhode Island, Massachusetts and New Jersey. The census enumeration shows something over 310 people to the square mile. This number includes a very large percentage of working people. Although their conditions of life are much less favorable to their personal interests and comfort than those which surround the laboring classes on the mainland, they are notably happy and good natured. With the improvement of the natural conditions with which they have been so bountifully favored, as the opportunities that exist are taken advantage of, they are capable of greatly increased industrial activity.

Realizing that advancement of their countrymen must come primarily from extended and intensified industry as a basis for education and a higher scale of living, the educated and intelligent classes among the people are devoting thought and energy to the improvement of industrial conditions. The Island, with so dense a population, to become prosperous in the true sense of the word, must be a veritable garden spot of intensified farming, and no doubt exists that this condition can and will be reached. The record of continued improvement during the past few years fully justifies the confidence in the Island's progress toward this ideal.

Geography. The Island of Porto Rico is fourth in size, and is the easternmost of the four larger Antilles (Cuba, Haiti, Jamaica and Porto Rico), separated from the island of Haiti on the west by the Mona Passage, and from the Virgin Islands on the east by the Virgin Passage.

In general outline the Island forms an irregular parallelogram, its length east and west being a little less than 100 miles, and its breadth north and south about 35 miles. It is about 450 miles to the east and slightly to the south of the nearest point of Cuba; 75 miles east of Haiti, and 40 miles west of the island of St. Thomas, the nearest of the Virgin Group, while Culebra Island, within the territorial jurisdiction of the Government of Porto Rico, is but 18 miles from St. Thomas. Porto Rico is about 1,500 miles from the port of New York, and the same distance from Cadiz. It lies between 17° 54′ and 18° 30′ N. latitude, and 65° 35′ and 67° 15′ W. longitude. Its area, 3,606 square miles, includes Mona Island, in Mona Passage; Caja





de Muertos, off the southern coast, a little southeast of Ponce; Vieques, or Crab Island, off the center of the east coast, and Culebra Island, north of the latter, as well as a number of smaller islands close to the northeast corner.

Its territory is made up of seven political districts, known as the districts of Aguadilla, Arecibo, Guayama, Humacao, Mayagüez, Ponce, and San Juan.

Geologically the Island of Porto Rico is of profound interest. Forming, as it does, the south-Topography. eastern extremity of the chain of islands known as the Greater Antilles, the island is one of the summits of the great range of submerged mountains that rise from immense depths in the ocean and form this Archipelago as well as the group of islands farther to the east. The vast proportions of this mountain chain may be judged from the adjacent deep-sea "The Brownson Deep," one of the most profound chasms on the globe, is a little less than 100 miles off the north coast of the Island. From here this stupendous range rises from a depth of 27,000 feet to the mountain summits above sea level. One writer upon Porto Rico has made the graphic statement that the West Indian Islands are only the protruding tips of the mightiest and most precipitous mountain range in the world, and that if it could be pushed up above the surface of the water it would reach heavenward to a greater height than that of Mount Everest in the Himalayas. The ocean depths near the Archipelago are the greatest known in the Atlantic.

This extreme ruggedness in conformation continues over the Island of Porto Rico, its backbone being formed by a series of mountains of volcanic origin, with summits over 3,000 feet in height, extending from the eastern to the western extremity, which, with their foothills, restrict the coastal plains to comparatively narrow strips of land both on the north and the south. To this peculiar formation is due the exceedingly mountainous and irregular appearance of the Island as it is approached. The main divide ascends rapidly from the west coast to a height of some 3,000 feet, and continues toward the center of the Island at an average elevation of 2,500 feet, terminating in the Luquillo Range, in which is El Yunque, the highest mountain in the Island, with a summit 3,700 feet above sea level. The descents from the main divide to the coast, both on the north and the south, are abrupt, and this, with the heavy rainfall, results in numerous torrential mountain streams which afford

an abundance of waterpower. The main divide between the watershed of the north and the south coast is formed by a series of irregular but connected mountain ranges, extending from the Cabezas de San Juan, at the extreme northeastern point, to the extreme west. The eastern end of this divide, formed by the Sierra de Luquillo, is connected by a lower divide with the Sierra de Cayey, which terminates at the southeastern extermity of the Island. The Sierra de Cayey, which closely approaches the southern and western coasts, extends westward at a comparatively uniform elevation of 2,200 feet, with summits reaching a height of over 3,000 feet, to the Aibonito Pass, near the center of the Island.

The main range then rises abruptly west of Aibonito, forming a broader sierra known as the Cordillera Central. This portion of the divide is uniform in height, being marked by no abrupt altitudes, the highest summit reaching but little more than 3,000 feet above sea level. It is crossed by passes at altitudes of from 2,500 to 2,800 feet, the principal pass being north of Ponce, leading to Adjuntas, at an elevation of 2,320 feet, at the headwaters of the Portugues and Arecibo Rivers. this point to the westward the divide presents an abrupt rise to El Guilarte Mountain, with a height of 3,600 feet, and the second highest elevation in the Island. From here to the west the character of the main range changes abruptly into a number of irregular spurs, which branch off to the northwest toward Lares and Las Marias, westward to Hormigueros and to the southwest toward San Germán. The principal ranges described above are of the same geological time and origin. They are of mixed volcanic and sedimentary origin, consisting chiefly of Hornblend, Gneiss and Tuff, embedded in which, at altitudes generally below 2.000 feet, are masses of compact, blue limestone of the Cretaceous period. Within five or six miles to the north of the main summits the river bottoms are found at altitudes of some 1,000 feet, being fed from the ridges above at elevations of 2,000 to 2,500 feet. On the other hand, within five miles of the coast, the river beds are elevated some 50 to 100 feet above sea level, while the summits of the dividing ridges reach altitudes of 1,000 to 1,500 feet. These ridges often continue to the shore line, are high and narrow, and are separated from one another by deep valleys. As is usually the case where an extensive limestone formation is found there is much underground drainage, the rivers often disappearing in chasms to reappear again at some distance, thus forming many subterranean channels. The Island is therefore honeycombed with caves which, having served for ages as the habitations of enormous numbers of bats, contain extensive deposits of guano.

In the highlands the influences of the water have turned the volcanic rock into a tough and sticky red clay, often to the depth of a hundred feet. This clay being practically impervious to water, has retarded its corrosive influence, and so retained the fertility of the soil in the monutain regions as to make them exceptionally suitable for the production of coffee and tobacco.

The coastal plains formed by the heavy deposits of alluvium brought down from the highlands by the streams, on the other hand, are likewise of great fertility and especially adapted for the raising of sugar-cane.

CHAPTER II.

CLIMATE.*

General Characteristics—Temperature—Afternoon and Morning Temperatures—Rainfall—Humidity—Sunshine and Cloudiness—Trade Winds—Tropical Storms.*

OR more than two thousand years geographers have recognized three climatic divisions or zones, the Torrid, the Temperate and the Frigid; or, as they are now commonly called, the Tropical, the Temperate, and the Polar zones of the earth. These terms are convenient, and as appropriate as any single terms which can be found, but they describe only the most general characteristics of their respective zones. The early geographers taught that the Torrid and the Frigid zones were not habitable; one because of too great heat, the other because of unbearable cold, and that the Temperate, or middle zone alone, was fit for human habitation. gators of the sixteenth century were able to ridicule these teachings, and more enlightened ideas soon began to prevail. What is known as the Temperate Zone embraces practically all varieties of climate, from the coldest to the hottest, and from the driest to the wettest. It includes at its northern limit the cold pole of the earth, in Northern Siberia, where the average temperature of midwinter is 50 degrees below zero; it also includes near its southern limit portions of the great Desert of Sahara, with an average July temperature of about 95 degrees. In spite of these great extremes of temperature, those portions of the zone which are occupied by the great mass of civilized peoples may be said to have on the whole temperate climatic conditions.

The term Torrid, as applied to the climate of the central zone of the earth, between the parallels of the Tropics of Cancer and of Capricorn, is almost as misleading as the use of the word Temperate to describe the climatic conditions of the middle latitudes. In area the Torrid, or Tropical, Zone embraces nearly 50 per cent of the entire area of the earth's surface, and includes a great variety of climates. The temperature contrasts are not so great as those of the Temperate Zone, but they may be considerable over limited areas at great elevations, com-

^{*}Based upon observations of the United States Weather Bureau.

bined with a dry atmosphere. On the whole, however, the zone is warm and moist, and relief from oppressive conditions must be sought in elevation and in regions of more than the average wind movement, such as the trade-wind belts, or within the influence of the local land and sea breezes which prevail along the coasts.

Our ideas concerning the healthfulness of extreme climates have undergone a radical change in recent years. Actual temperature and moisture conditions are not so much the determining factor as strict enforcement of sanitary regulations. Climates which were not many years ago considered highly injurious and unfit for the permanent residence of the white man have been shown to be not only safe, but perfectly healthful. The marvelous improvement in the healthfulness of the Panama Canal Zone, brought about by the intelligent efforts of the American engineers, in a region where thousands of working men perished annually under less efficient care, is a striking illustration of the minor part played by actual climatic conditions.

General Characteristics.

The most characteristic feature of Tropical climates is the regular recurrence of similar phenomena from day

to day throughout the year. The strong contrasts in temperature, which mark the seasons of the north, with the accompanying variations in the abundance and character of plant life. are conspicuous by their absence in the Tropics. The periodic recurrences in plant and animal life are determined more by rain or the absence of rain than by marked changes in temperature. The contrast between day and night conditions are more marked than the seasonal contrasts. The irregular changes in the weather, such as storms, cold waves, hot waves, etc., which largely control weather conditions in the United States, are so infrequent in the lower latitudes as to cut but a small figure in making up the average of weather conditions. Next to uniformity in the Tropics we have the factor of abundance; abundant heat, rather than excessive heat; abundant moisture, both in the form of a high humidity and of rainfall; and abundant and perennial plant and animal life.

When we come to consider the place which Porto Rico occupies in this favored zone of plenty, we find to her credit an attractive combination of many desirable physical and climatic features, especially for the planter and for the tourist. The Island is primarily an agricultural country. Each succeeding

year witnesses an increasing acreage in sugar, tobacco, coffee, citrous fruits and pineapples. The great natural beauty of the Island, its splendid system of macadamized roads, and the ideal winter climate, will some day attract the ever-increasing throng of winter tourists. With over a million inhabitants, and with a density of population equal to that of Massachusetts, the healthfulness of the Island, based on the mortality statistics, ranks with that of Boston, New York, and Baltimore. The geographical position of the Island within the trade-wind belt, combined with its high elevation above the sea level, mark it as one of the most favored regions within the Tropics.

While the physical features of the Island seem never to have been accurately charted, the more conspicuous outlines of topography and hydrography are fairly well known. Seen from a distance, the Island gives the impression of a confused mass of short mountain ranges, having in the main an east-west Closer examination reveals a well-defined ridge, the Cordilleras, extending across the full length of the Island. parallel to, and from 10 to 12 miles from, the south coast, its eastern end following for a short distance the northeast trend of the coast line. In the northeast portion of the Island there is a smaller group of mountains, the Luquillo Range, also with an east-west trend, and with peaks slightly higher than those of the main range. These two mountain ranges form the principal watershed which separates the system of short streams. which flow southward into the Caribbean Sea, from the system of comparatively longer and more numerous streams flowing in a general direction northward into the Atlantic Ocean. longest of the streams, Río de la Plata, does not exceed 45 miles. Numerous spurs diverge from the main range, mostly from the north side, forming a complex system of narrow ridges, and of deep valleys, through which hundreds of small streams carry the waters of an abundant rainfall rapidly to the sea. The south slope of the main divide is decidedly more precipitous than the north side. From Guayama Pass southward to the coastal plain the descent is about 100 feet per kilometer; northward the rate is about 50 feet per kilometer. divide has an average elevation of about 2,500 feet, with peaks rising to a maximum of about 4,000 feet, while the elevations of the main spurs will vary from 1,500 feet to 2,000 feet. lowlands are found only in a narrow belt bordering the coast, the broadest stretches not exceeding 4 or 5 miles in width.

The average elevation of the Island as a whole above sea level is perhaps 800 feet. Of the 50 climatological stations established by the United States Weather Bureau, 20 are on the coastal plain, with an average elevation above the sea of less than 100 feet; the inland stations, numbering about 30, have an average elevation of 1,000 feet, with a maximum of 2,600 feet.

Porto Rico, in common with all islands within the areas swept by the northeast and southeast Temperature. trade winds, has a warm, but equable and comfortable climate. The small extent of the Island, with its moderate elevations above sea level, insures a uniformity of temperature characteristic of marine climates in all latitudes. The series of carefully made daily observations of the United States Weather Bureau in 50 selected localities upon the Island cover a period of more than ten years, a period sufficiently long, in the Tropics, to include all the variations in temperature likely to be experienced in any portion of the Island. In considering temperature records it is well to bear in mind that observations, in order that they may be comparable, are always made in the shade, uninfluenced by the direct rays of the sun. This is a matter of special importance in comparing observations made within the Tropics, where solar radiation is so intense, and the difference between shade and sunshine so much more noticeable than in the middle latitudes.

The simplest expression for the temperature of a given region is the average temperature for a series of years, usually derived from daily observations of the highest and lowest readings of a good thermometer. Such a record covering a period of more than ten years at over 40 selected stations shows a mean annual temperature for the Island, combining the records at all stations, of 76 degrees; during the coolest month of the winter season the average is 73 degrees, and during the warmest month of summer it is 79 degrees. The variation of the mean annual temperature has very restricted limits, having varied only about 1 degree above and below 76 degrees in the past ten years. The average temperature during the month of February, which shows the greatest variation, has fluctuated only between the limits of 76 degrees and 72 degrees.

The above values represent average conditions for the Island as a whole, coast stations and mountain stations combined. The figures will vary somewhat with elevation and other topographic conditions. For the towns situated upon the narrow coastal plain encircling the Island the average annual temperature is 78 degrees, the average for January 75 degrees, and for August 81 degrees; at inland stations the average annual falls to a minimum of 72 degrees, with 69 degrees during January and 75 degrees during August. The lowest temperatures are naturally those experienced along and near the summit of the main divide, at elevations varying from 2,000 feet to 3,000 feet; here the mean annual temperature falls below 72 degrees. At Aibonito the mean temperature for the year is 72 degrees, with a January mean of 67 degrees and a mean for August of 76 degrees. The highest mean temperature for August in five years was 77 degrees, and the lowest January mean was 66 degrees. (See Chart I.)

The Island of Porto Rico has a mean temperature below that of places in the Tropics having the same latitude, as shown by the following figures:

Normal temperatures for the parallel of 18 degrees north latitude and of Porto Rico.

Period.	18 Degrees north latitude.	Porto Rico.	Difference.
January. July. Year	82.4	$Degrees. \ 73.2 \ 78.8 \ 76.4$	Degrees. 0.2 3.6 2.4

The values quoted in the preceding paragraphs may be compared, in the following table, with average values for the same seasons at selected points in the West Indies and at more remote points in the United States and elsewhere:

Table I.—Comparative Statement of Temperatures.

Locality.	Mean annual temp.	Mean warmest month.	Mean coolest month.	Average daily range.	Highest re- corded.	Lowest re- corded.
Manila. P. I. Colon, Panama Barbadoes Kingston, Jamaica San Juan, Porto Rico Key West. Fla. Havana, Cuba Nassau, Bahamas Porto Rico (entire island)	82 80 79 78 78 77 77 77 77	84 80 81 81 81 85 82 83 79	Degrees. 77 79 77 75 75 70 71 71 71	Degrees. 12 817 11 10 11 12 19	Degrees. 100 *9597 94 100 100 98 103	Degrees 60 *64 57 63 41 58 53 40
Honolulo, H. I. Albonito, Porto Rico. Bermuda. New Orleans, La. Los Angeles, Cal.	74 72 69 69 62	78 76 79 83 72	70 67 62 54 54	10 24 15 20	88 91 102 99	52 40 7 32

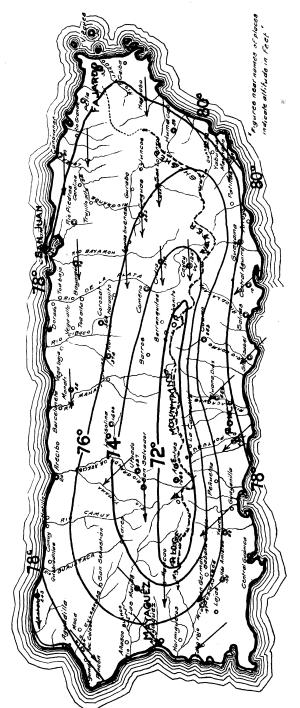
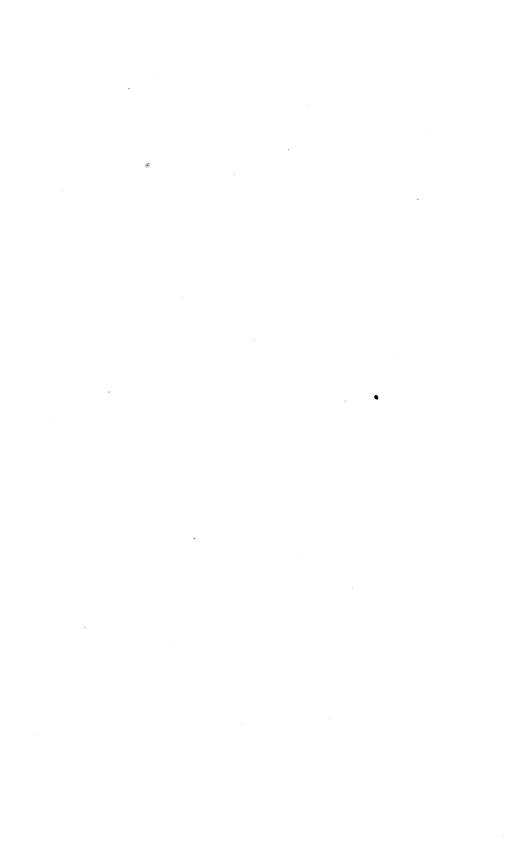


CHART I.-Mean Annual Temperature and Prevailing Direction of the Winds.



The smallest variations in the mean temperature noted in the tropical localities of the above table are characteristic of the islands within the trade-wind belts. They are due to the slight differences in the elevation of the sun from season to season, to the small geographical extent of the land areas, and to the constant wind movement throughout the day and night. In the Tropics the difference between the afternoon temperatures and the night temperatures is decidedly greater than the difference between the mean summer and mean winter temperatures, while in the higher latitudes the annual range in temperature in nearly all cases is larger than the diurnal range. Relief from the heat of the day in the Tropics may almost always be found in the comparatively low night temperatures. During the middle of the day the sun's rays are tempered by the increasing force of the wind and by the decreasing relative humidity, which always accompanies a rising temperature.

San Juan has a more equable temperature than any other portion of the Island, due to the fact that the city is almost surrounded by water, the ocean to the north and the harbor to the south. But few of the cities and towns of Porto Rico were built upon the immediate coast. The coastal plain towns have their playas, or beaches, but the towns themselves were located two or more miles inland, beyond the reach of chance shots from passing vessels of the early days of the Island. Hence the temperature records of the coast towns show a diurnal range much greater than that of San Juan. The inland stations show a much larger difference between the early morning and the afternoon temperatures.

To those accustomed to the strong climatic contrasts of the northern latitudes, the differences between winter and summer temperatures in the Tropics seem small and insignificant; they are, however, large enough to make a decided difference in personal comfort, especially at inland stations.

January is, on the whole, the coolest month of the year, although there is but a fraction of a degree difference between the mean values of January and February. From March there is a steady rise in the mean temperature, until a maximum is reached in August, generally, although frequently in July or in September. The differences between the mean temperatures of July, August, September, and October are very slight, and probably are due to differences in the rate of wind movement, or variations in the amount of cloudiness. During the winter

months the mean daily temperature is 75 degrees to 76 degrees along the coast, decreasing to 74 degrees over most of the coastal plain. At stations farther inland the winter temperature ranges between 72 degrees and 68 degrees, depending upon the elevation above sea level. During the summer and early fall the mean temperature along the coast is 80 degrees to 81 degrees, although it frequently rises to 82 degrees or 83 degrees along the southeast coast. At the more elevated stations the mean summer temperatures vary from 76 degrees to 74 degrees. There is a fairly constant difference of 6 degrees to 8 degrees between the coast temperatures and those of the higher inland stations throughout the year.

While the mean daily temperature does not
Afternoon and
Early Morning
Temperatures.

While the mean daily temperature does not
vary greatly from month to month, the difference between the afternoon and early morning
temperatures, or the daily range, as it is called,

is comparatively large, larger as a rule than in more northern regions. At stations on the immediate coast, like San Juan, or on the smaller islands of Culebra and Vieques, the diurnal range is controlled by the uniform temperature conditions of the surrounding ocean, and is quite small, 10 degrees or 11 degrees. At inland stations the mean daily range varies from 20 degrees to 25 degrees. At stations along or near the coast the afternoon temperature rises to an average of 84 degrees in the winter months, and to 89 degrees in the summer months, while the early morning temperatures fall to 73 degrees in the summer and to 66 degrees in the winter seasons. stations farther inland, in the hills and mountains, the average daily maximum is about 87 degrees in the summer months and 81 degrees in the winter months, while the average daily minimum is 68 degrees in summer and 61 degrees in winter. (See Table II.—Average daily and monthly fluctuations in temperature.)

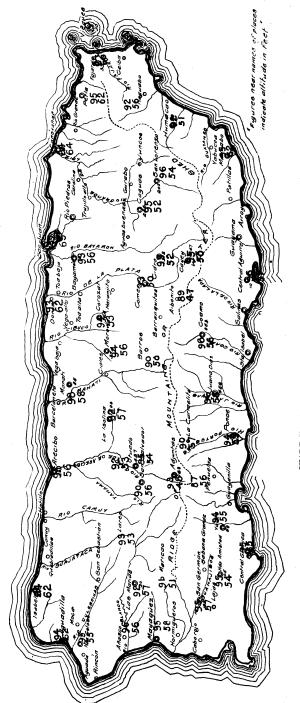


CHART II.—Average Annual Extremes of Temperature. (Red figures.)

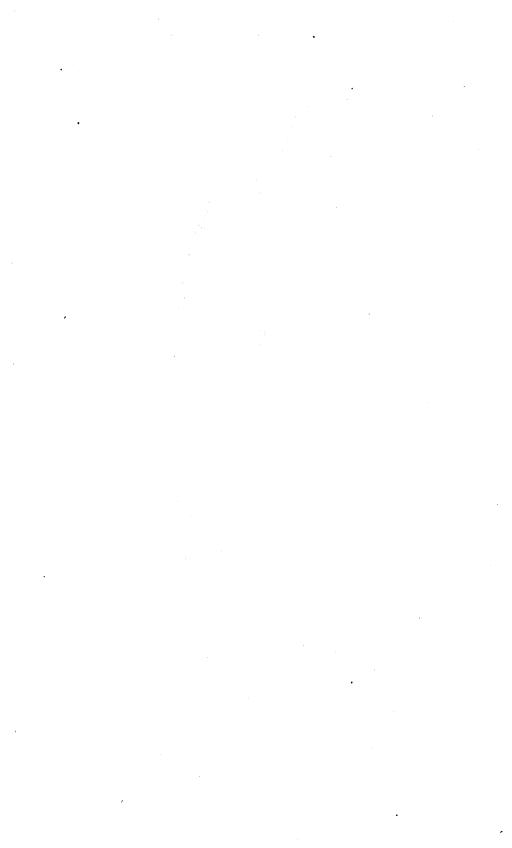


Table II.—Average Daily and Monthly Fluctuations in Temperature.
(In degrees Fahrenheit.)

	Eleva- tion.	Daily fluctuations.					Monthly fluctuations.				
Stations.		January.		July.		Year.	January.		July.		Year.
	Feet.	Maximum.	Minimum.	Maximum.	Minimum.	Daily range.	Maximum.	Minimum.	Maximum.	Minimum.	Monthly range.
COAST STATIONS.											
San Juan Fajardo Ponce Mayagüez	82 60 50 50	80 85 85 86	70 68 64 62	86 88 90 90	75 75 72 68	11 14 19 23	84 87 87 89	57 63 60 58	88 91 93 93	71 71 67 65	19 24 26 29
INLAND STATIONS. Aibonito Barros Cayey Lares Coamo	2,000 2,000 1,400 1,400 250	76 77 81 83 86	58 58 59 58 62	84 86 88 90 91	68 67 68 64 70	19 19 22 25 23	81 82 85 86 90	57 51 51 53 57	86 90 93 92 94	64 62 63 60 66	30 31 33 32 31

The temperatures quoted in the preceding paragraphs are average values, and express the normal march of temperature from day to day and from month to month during a period of about ten years. While average values vary greatly from the actual temperatures experienced in northern and middle latitudes, especially at stations far removed from the coast, this is not generally true of tropical temperatures, particularly on the smaller islands, like Porto Rico, in the trade-wind belts; here large departures from the normal values are exceptional, and the figures representing average values do not differ widely from those expressing actual temperatures experienced from day to day. To one accustomed to variations of 15 degrees to 20 degrees and more in the average temperature from day to day, differences of a degree or less for many successive days seem remarkable.

The extremes of temperature recorded at selected stations in Porto Rico during the past ten years are noted on Chart II. More detailed data on temperature conditions may be found in the recently published tabular statements in the monthly climatological reports of the Porto Rico Section of the United States Weather Bureau. The highest temperatures recorded during the past ten years in Porto Rico do not differ greatly in different portions of the Island. At the more elevated inland stations the range is between 90 degrees and 95 degrees, while along the coast and in the valleys they range from 95 degrees to 100 de-

grees. Only on three occasions in the past ten years has a temperature exceeding 100 degrees been recorded at any of the forty-odd stations on the Island: In August, 1906, a maximum of 103 degrees was reported from San Lorenzo, in the east-central portion of the Island, and again in September of the same year a temperature of 101 degrees; in September, 1908, the observer at Arecibo, on the northwest coast, reported a temperature of 101 degrees. (See Chart II.)

There is a greater variation in the early morning temperatures. At the stations near the coast and at most of the interior stations the lowest recorded temperatures range between 50 degrees and 55 degrees; at stations on the immediate coast, which are more under the influence of the uniform ocean temperatures, the minimum rarely falls below 60 degrees; at higher stations in the mountains the minimum frequently falls to 45 degrees, and has been as low as 40 degrees at Aibonito, at an elevation of 2,000 feet, and probably lower at greater elevations along the summit of the main divide.

The average annual rainfall for the entire Island is 76.34 inches. This value is based upon the records Rainfall. of 50 stations, covering a period of thirteen years. The annual amounts vary greatly from year to year, and in geographical distribution. In 1901 the average amount for the Island as a whole was 93.72 inches, and in 1907 but 64.18 inches. The variations in geographical distribution are even greater. In the Luquillo Mountains, where rainfall is heaviest, the average annual amount exceeds 135 inches, with a maximum in 1901 of 169 inches. Along portions of the south coast the average annual amount is less than 40 inches, with a minimum, at Aguirre in 1907, of 21 inches. At stations along and near the south coast the average annual rainfall is about 45 inches; along the north coast the average is about 65 inches. Along the west coast the rainfall is greater, the annual fall being 75 inches. while along the east coast and at inland stations the average increases to 85 inches. These variations in the annual rainfall are due to differences of elevation and to the trend of the mountain ranges with reference to the prevailing winds.

There are three well-defined areas of heavy rainfall, in each of which the annual amount exceeds 100 inches: (1) The Luquillo Range, a heavily wooded and comparatively inaccessible region in the northeast portion of the Island; (2) the peaks

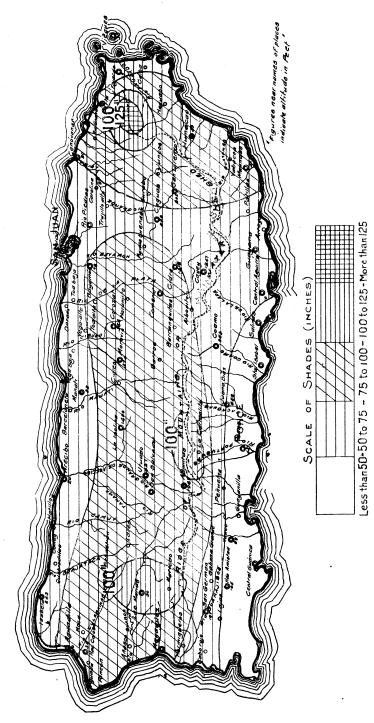


CHART III. - Average Annual Rainfall.



about Adjuntas, near the south-central part of the Island; (3) the mountains radiating from the western extremity of the main divide, in the vicinity of Las Marías and Maricao. (See Chart III.)

The most striking feature of the rainfall distribution is the contrast between the heavy and perennial rains north of the main divide and the light and irregular rains of the south-side coastal plain. Over the north side, comprising over two-thirds of the entire Island, an abundant rainfall may be counted upon in all seasons of the year, and protracted droughts are of rare occurrence; along the south coast the rainfall is not only comparatively light, but unevenly distributed throughout the year, and periods of several months with little or no rain are frequent.

The irrigation project now under construction along the south coast will in great measure overcome the disadvantages of an insufficient and irregular rainfall. In the mountains, but a few miles distant, there is an abundant water supply, available at all seasons of the year, which can be carried to the coastal plain at comparatively small cost. The main divide is to be tunneled at two points, and the headwaters of the La Plata and Toro Negro rivers will be carried across the divide to the cane fields on the south side.

There are no well-defined wet and dry seasons on the Island. The winter rains are comparatively light, with a minimum in February at practically all stations. From February there is a steady increase in the average monthly amounts through May. From May to November the differences in the average monthly amounts for the entire Island are small. The maximum generally falls in September along the east coast, in October along the south coast, in November along the north coast, while in the mountains of the interior the time of maximum occurs in one of the summer months or as early as May. The seasonal distribution of rainfall shows a steady increase, for the Island as a whole, from 11 inches in winter to 26 inches in autumn, with 16 inches for the spring months and 23 inches for the summer months, making up the total of 77 inches, in round numbers, for the average annual rainfall of the Island.

The rains of Porto Rico, while frequently very heavy, are usually of short duration. The average duration of a shower is probably not more than 10 or 12 minutes, although on many

occasions a series of intermittent showers will extend over a period of an hour or two. During the passage of a tropical hurricane, or when one of the more extensive North Atlantic storms passes eastward along a more southern route than usual, the period of continuous rainfall may be extended to several hours and even throughout the day, or there may be several successive days of unsettled weather with frequent showers. But such storms are of comparatively rare occurrence. During the past forty years the centers of only three hurricanes have passed over the Island of Porto Rico, although they frequently pass near enough to cause heavy rains over some portion of the Island.

The average amount of rainfall upon days with rain is about half an inch; the rains of the winter months average somewhat less, from three to four-tenths of an inch, and those of the summer and fall months somewhat more, from five to six-tenths of an inch. Neglecting days with a rainfall of less than 0.01 inch, the average twenty-four-hour rainfall varies from 0.26 inch at Caguas to 0.74 inch at Utuado; for San Juan the average is 0.30 inch. These average values are, however, greatly exceeded in individual cases. The heaviest rains recorded during a twenty-four-hour period since the establishment of the Climatological Service of the United States Weather Bureau in 1899 occurred during the passage of the hurricane of August 8, 1899, during the rainy periods of May and November, 1909, and during the local storm of September 6, 1910. The town of Adjuntas was in the center of the path of the hurricane of August, 1899; the local observer reported a rainfall of 23 inches in twenty-four hours, the heaviest twenty-four-hour rainfall on record in Porto Rico. There are numerous records showing a more excessive rate of fall, but for shorter periods. During the storm of September 6-7, 1910, Naguabo reported a fall of 19 inches within a period of twelve hours. There are numerous instances of a fall of 10 inches in twelve hours, while amounts of 4 to 5 inches in twenty-four hours are of very frequent occurrence.

The variations in the recorded amounts of rainfall from year to year, and the means and extremes during the year, for the entire Island, are shown in Table IV. While heavy rains occur with comparative frequency, they form but a small percentage of the total number of rains during the course of the year. A tabulation of the rainfall records at 44 stations during a period of ten years shows the following relative frequency of stated amounts:

33 per cent of all rains measure 0.10 inch or less. 50 per cent of all rains measure 0.20 inch or less. 75 per cent of all rains measure 0.50 inch or less. 90 per cent of all rains measure 1.00 inch or less.

Thus there remain but 10 per cent to include all amounts greater than 1 inch. These percentages apply roughly to stations in all parts of the Island, after making an exception of amounts less than a tenth of an inch, for which the percentages vary greatly.

Rain occurs in some quantity over some portion of the Island practically every day in the year; it is probable that the month of February is the only month of the year having occasional periods of three or four days without some rain somewhere within the Island. For the Island as a whole, rain occurs on the average of 167 days in every year. At Guánica, on the south coast, the average annual frequency is but 65, while the number occasionally rises to 300 in the Luquillo Mountains. The minimum frequency in any one year was 28, at Guánica in 1907, while the maximum has been as high as 341, at La Perla, in the Luquillo Range, in 1900. The days with rainfall to the extent of 0.01 inch or more are distributed through the year with considerable uniformity, considering the Island in its entirety. The average monthly frequency varies between the narrow limits of 10 to 14 in the winter months, and 15 to 17 during the period from May to November. Along the southern coast the average annual number varies from 75 to 100; along the western and northern coast, and generally in the interior, the average number of days with rain is about 175, and along the eastern coast the number exceeds 200. On the eastern slope of the Luquillo Mountains rain occurs on an average of over 260 days per year, with a maximum of 341 in 1900. The variability in the frequency of days with rain is shown for a few selected stations in the following Table III:

Table III.—Rainfall at Selected Stations.

(In inches.)

	Eleva- tion.	Ann	u a l rain	fall.	Ave mon	rage thly.	of cain	days v	inch
Stations.	Feet.	Ауегаде.	Highest.	Lowest.	Wettest.	Driest.	Average.	Highest.	Lowest.
COAST STATIONS. San Juan Ponce. Mayagüez. Fajardo	50	64.26 39.63 80.01 68.51	78.96 58.73 100.91 87.00	52.03 30.12 46.32 55.58	7.57 7.46 9.87 9.61	2.10 0.69 1.68 2.24	211 84 176 187	226 95 218 236	196 77 147 134
INLAND STATIONS. Aibonito Barros Cayey Coamo Lares	2,000	67.86 76.72 66.61 52.43 93.36	89.67 117.81 98.66 97.56 102.55	39.51 61.54 35.89 21.42 83.37	7.69 8.89 8.35 6.81 10.50	3.33 3.32 2.61 1.48 2.94	147 157 170 86 149	180 201 198 128 160	133 93 133 33 119

The feeling of lassitude, which is common to warm, moist climates, is to a great extent dissi-Humidity. pated in Porto Rico by the persistent flow of the trade winds throughout the day and night, supplemented by the daily play of the land and sea breezes. While the large amount of moisture in the atmosphere becomes oppressive during periods when the winds fail, it is extremely favorable to the growth and development of vegetation throughout the year. On the dry south side of the Island the heavy dews of the night and early morning offer some compensation for the lack of rain. The high percentage of humidity also prevents the large and rapid fall of temperature during the night, so characteristic of drier climates. There are no official humidity records available for the inland stations of the Island, but the observations at San Juan are typical for the entire coast. The variations in the average humidity from month to month are not large. average for the entire year is 78 per cent; during the driest month, March, it is 75 per cent, and during the most humid months of October and November it is 81 per cent. At interior stations, and on the south side, the atmosphere is drier. relative humidity, of course, varies greatly during the course of the day, falling as the temperature rises with the advance of the day, and rising with the diminishing temperature of the night.

The diurnal fluctuations are usually between 87 per cent in the early morning hours and 67 per cent in the middle of the day. The average during the day is about 70 per cent, and during the night 85 per cent.

While days with rain are frequent, and the Sunshine and Cloudiness.

Of sunshine throughout the year in all portions of the Island. An inspection of the record of the comparative frequency of clear, partly cloudy, and cloudy days will show a remarkable preponderance of clear and partly cloudy days over cloudy days. The record for San Juan, where hourly observations have been carefully maintained from sunrise to sunset for five years, shows on the average 139 clear days, 158 partly cloudy days, and 68 cloudy days per year. The variations at selected stations on the Island are shown in the following tabular statement:

Record of Clear, Partly Cloudy, and Cloudy Days.

STATIONS.	Clear.	Partly cloudy.	Cloudy.
COAST STATIONS. San Juan. Ponce. Mayagüez. Humacao.	139	158	68
	125	168 •	72
	95	189	81
	170	42	153
INLAND STATIONS. Barros. Cayey Coamo Corozal Lares.	220	108	37
	224	82	59
	216	53	96
	186	109	70
	220	63	82

The average cloudiness during the course of the day is remarkably uniform at San Juan. The record of hourly observations for five years shows the following variations in the proportion of sky covered by clouds from hour to hour during the course of the day, 100 per cent representing a sky entirely overcast:

7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.
47 %	46%	45%	43%	42%	41%	42¢	43%	45%	46%	48%	48%

This shows the sky to be, on the average, clearest at noon, but the slight variations are surprising. The variations in cloudiness during the course of the year show a maximum of 55 per cent in September and a minimum of 36 per cent in March, with an average for the year, at San Juan, of 45 per cent.

The Trade Winds. rence along the coasts of the cool, invigorating sea breeze, constitute a beneficent provision in the Tropics for counteracting the enervating effects of a high temperature combined with a large amount of moisture in the atmosphere. This is clearly shown during the occasional periods of a few days when the trades fail and light, variable winds prevail, accompanied by sultry and oppressive weather.

The value of the trade winds as an aid to navigation was known to the early voyagers to the West Indies. Reference to the existence of constant winds blowing from the east in certain latitudes may be found in the literature of voyages of the first The Jesuit, José de Acosta, half of the sixteenth century. devotes several chapters of his classic work, the "Natural and Moral History of the Indies," published in 1590, to descriptions and explanations of these winds, and to the great benefit to be derived from utilizing them in voyages to the New World, as well as the prevailing westerlies of higher latitudes for the return voyages to Europe. The early Spanish navigators called the trades brisas, and the prevailing westerlies of the middle latitudes they named vendavales. Acosta's explanation of the trades, while receiving general acceptance at the time and long after, had to be discarded in the light of a better understanding of the general movements of the atmosphere, as influenced by the rotation of the earth about its axis. The general circulation of the atmosphere of the globe and the causes which give rise to changes in wind direction and force are now fairly well understood. Over the North Atlantic there is a permanent area of high barometric pressure, or anti-cyclone; in the equatorial belt the pressure is permanently low; the flow of the atmosphere southward toward the equatorial low area constitutes the North The rotation of the earth from west to east Atlantic trades. deflects this wind from a north wind to a northeast, east or southeast wind, depending upon the locality with reference to the center of the area of high pressure. This area of high pressure, while permanently located in the North Atlantic, shifts its position within limited bounds from month to month and from year to year, causing variations in the prevailing direction of the trades; at the same time there are variations in the gradient of pressure, or the difference in pressure, between the center and edges of the high area, causing variations in the velocity of the trades. In Porto Rico the variations in the direction of the wind during the course of the year are from northeast to southeast, with a decided predominance from the east-southeast. The only variation from east-southeast (regarding monthly averages only) is likely to occur in July, August and December, when the prevailing direction is more nearly east, and in October, when it is prevailingly southeast.

The average velocity is remarkably constant in Porto Rico, the average hourly velocity from month to month not varying more than 1 mile from the average of 11 miles for the entire year, excepting in July, when it rises to 13 miles per hour, and in October and November, when it falls to 8 and 9 miles, respectively.

Average Hourly Velocity and Prevailing Direction of the Wind at San Juan.

(Miles per hour.)

1,000,000	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Velocity	11	11	12	11	11	12	13	12	10	8		10	11
Prevailing direction.	ESE	ESE	ESE	ESE	ESE	ESE	Е	Е	ESE	SE	ESE	Е	ESE

Porto Rico is comparatively free from storms of all kinds. During the summer months a mild type of thunderstorm occurs with more or less frequency, but these storms seldom attain the intensity common to most portions of the United States during midsummer, and they attract little attention from the visitor from the north. The more destructive local storm of the type known as the tornado is almost unknown in the Tropics. In the middle latitudes, and particularly in the northern United States, cyclonic storms pass across the country from west to

east in all seasons with such frequency as to completely dominate the daily weather conditions; there is a constant succession of approaching, passing and disappearing cyclones. They vary in intensity from shallow barometric depressions, which move quietly across the country, producing only light winds and gentle showers, to storms of the greatest violence and of great geographical extent, at times covering more than half the area of the United States.

The Tropics are singularly free from these cyclonic disturbances during the greater portion of the year, and there is a monotonous recurrence of similar weather conditions, interrupted only by light to heavy showers of short duration, or by the occurrence of a mild type of thunderstorm, or squall. During the months of July to October, however, that portion of the trade-wind belt containing the West India Islands and the Caribbean Sea is subject to occasional visits from one of the most destructive types of cyclonic storms—the West India hurricane. These storms are similar in form and general character to the Temperate Region cyclones, but differ from them in being more restricted in area and in moving more slowly. Their general direction is from east to west, within the Tropics, being carried along with the general westward drift of the atmosphere. They recurve generally in the Gulf of Mexico, or over the Bahama Islands, and then move northward and northeastward, either across the United States, up the east coast or over the Atlantic Ocean, and cannot be distinguished from the Temperate Region cyclones.

The recorded storms of this character during the past four hundred years number about 450, or an average of a little more than 1 per year. While they are liable to occur at any time from July to October, over 80 per cent of those recorded during the past forty years have occurred in the months of August, September and October. Porto Rico has been remarkably free from the severer types of these storms. Only on three occasions in forty years did the center of a hurricane pass over the Island, all of these in the month of August—namely, in August of 1891, 1893 and 1899. By far the most destructive of these storms was that of August 8, 1899. The storm of September 12, 1898, passed very close to the south coast.

These storms mostly originate, or first appear within the field of view, in the Caribbean Sea, move in a direction between west and northwest at a rate of about 10 or 12 miles per hour, and then recurve to the northward and northeastward, increasing their velocity as they get into higher latitudes. The comparatively slow movement of these storms in the Tropics is a fortunate circumstance, as it enables the official forecaster, after once locating the center, and determining the direction of movement, to give ample warning of their approach in the western waters of the Caribbean Sea and in the ports of the Gulf coast.

Table IV.-Mean Monthly and Annual Temperature 1899-1911.

					•										
STATIONS.	Eleva- tion in feet.	No. of years	Jan.	Feb.	March.	April.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1 Adjuntas	1,700	6	68.7	8.89	68.6	70.4	72.7	73.4	73.3	74.5	74.2	73.2	72.3	70.1	71.7
2 Aguadilla	25	4	75.2	6.97	77.3	79.1	80.6	81.4	81.9	81.5	80.7	79.4	78.4	75.6	0 02
3 Aguadilla (Coloso)	35	12	73.9	73.6	73.7	75.8	77.8	78.7	8.8.	79.4	79.1	78.4	77.3	75.0	2.97
4 Aguirre	20	12	0.92	75.6	75.6	8.22	9.62	80.3	80.6	81.5	81.0	80.5	79.3	77.2	2002
	2,000	9	67.2	67.6	68.4	9.02	72.3	74.4	7.5.7	76.1	75.1	74.0	70.9	68.2	71.7
6 Alto de la Bandera	2,600	5	8.89	68.6	0.69	72.2	72.4	74.1	73.1	7.7.	73.4	72.6	71.0	69.3	71.4
7 Añasco	25	9	75.6	74.4	74.5	76.5	6.77	78.7	6.82	8.82	78.6	8.87	78.0	75.8	77.2
	75	00	74.1	73.9	74.7	0.92	0.82	79.2	79.2	6.62	80.0	79.5	6.72	75.2	77.3
9 Bacupey and Jobos	1,000	1~	70.4	70.4	71.0	72.8	74.7	76.2	77.1	77.7	6.92	76.4	75.1	72.8	74.3
10, Barros	2,000	9	68.5	9.89	69.3	71.2	73.5	75.5	76.2	76.3	74.5	73.8	72.3	70.4	72.5
11 Bayamón	75	13	73.3	73.6	74.1	7.5.7	17.5	78.4	78.7	79.1	79.3	78.7	77.5	75.0	7.97
12 Caguas	250	13	21.8	71.9	72.6	75.2	77.4	78.5	78.5	6.82	78.6	4.77	75.9	73.0	75.8
13 Canóvanas	30	13	74.9	75.4	0.92	78.0	6.62	80.5	80.6	80.9	80.7	6.62	78.1	75.9	78.4
14 Cayey	1,350	11	69.3	6.69	70.1	72.3	74.8	7.97	78.3	78.0	8.92	0.97	73.8	71.7	74.0
15 Cidra	1,400	12	69.3	7.0.7	70.1	72.8	74.1	74.8	75.9	76.2	75.9	74.8	74.0	8.07	73.3
16 Coamo	350	<u>~</u>	73.4	74.4	75.4	8.92	77.4	9.82	80.5	81.1	79.5	79.0	6.77	75.9	77.5
17 Comerío	500	9	71.4	71.0	71.1	74.0	0.77	78.0	78.1	9.82	78.6	8.77	75.8	73.7	75.4
18 Corozal	400	13	72.5	73.2	.72.6	74.9	2.97	78.1	78.3	78.5	6.82	9.82	8.92	74.3	76.1
_	20	4	75.9	75.8	77.2	78.4	80.2	82.0	81.7	81.6	81.5	80.9	79.4	9.77	79.4
_	25	4,	73.0	73.2	2.8 8.8	75.0	77.0	78.3	78.3	79.3	78.9	9.82	77.3	0.92	76.6
21 Fajardo	35	15	6.92	76.5	2.6.6	78.4	80.2	81.0	81.6	82.3	81.4	80.8	9.62	11.7	79.4
_	15	10	73.6	74.0	74.8	76.1	8.77	6.62	79.2	8.62	9.62	78.7	6.92	75.4	77.2
	100	9	73.0	72.8	74.0	22.8	77.7	79.2	79.4	8.62	79.4	8.82	9.22	75.2	6.92
_	275	13	75.3	75.2	7.5.7	77.0	78.3	79.5	80.4	80.4	80.1	7.62	8.87	9.92	78.1
25 Isolina	1,400	15	71.5	71.8	71.5	73.2	74.8	9.92	77.1	77.4	8.92	0.97	75.0	72.6	74.5
26 Jayuya	1,500	က	69.2	69.5	69.1	71.0	73.0	75.9	76.1	8.97	75.6	74.2	73.0	71.1	72.9
27 Juana Díaz	200	12	0.97	0.92	76.4	77.7	78.7	6.62	80.8	80.8	8.08	6.62	78.8	9.72	78.6
28 Juneos	250	ς 1	73.3	72.9	73.9	76.3	77.1	9.82	79.0	79.3	80.6	80.0	78.0	74.4	77.0
29 La Carmelita	1,500	œ	9.02	9.02	9.02	71.7	72.6	74.4	75.3	75.8	74.9	74.6	73.8	72.3	73.1
30 Lajas	100	က	74.0	76.5	75.8	9.92	78.5	78.8	9.62	79.2	79.0	8.77	75.9	73.9	77.1

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31 Lares	1,400	6 5	70.8	70.8	71.6	4.87	75.2	76.7	76.9	77.5	7.97	76.2	74.9	72.1	74.4
33 Lucuillo (La Perla)	503	2 00	2.5	74.4	8. 4.	6.97	79.1	9.62	9.62	80.6	80.0	78.9	77.3	75.6	77.6
Manatí	09	2	73.5	73.8	74.3	76.1	78.1	79.5	80.0	80.5	80.0	79.1	77.3	74.7	77.2
-	1.500	īĊ	9.69	9.89	69.1	70.3	72.1	73.9	74.2	74.9	74.6	74.2	73.0	71.4	72.2
	20	12	76.4	9.92	77.0	79.1	80.3	81.8	82.3	82.9	81.9	81.2	6.62	78.2	8.62
-	80	12	74.3	74.3	74.7	76.1	27.8	8.82	6.82	79.3	9.62	79.3	8.77	75.9	77.2
2	750	œ	72.7	72.6	72.4	75.4	77.0	8.77	78.1	78.7	78.1	77.5	76.2	72.8	75.8
39 Naguabo	130	က	75.1	75.1	75.8	9.77	0.62	81.0	81.3	81.7	81.1	80.5	79.1	6.92	78.7
	8	13	75.0	74.9	75.6	77.5	79.1	80.4	80.5	81,4	80.8	80.1	8.82	7.97	78.4
	50	01	75.7	75.9	0.97	78.2	80.4	9.08	81.2	81.6	82.4	81.0	8.62	9.77	79.2
42 Río Blanco	100	œ	73.6	74.3	74.7	76.2	8.77	79.1	7.6.2	6.62	9.62	79.2	77.7	75.6	77.3
San	350	11	73.7	74.0	74.2	75.7	2.77	8.82	8.62	80.0	80.0	79.2	9.77	7.9.7	77.2
	100	13	75.1	75.2	75.3	77.1	8.82	80.0	80.2	80.7	80.6	80.1	78.5	2.92	78.2
San	200	20	72.9	72.7	73.6	76.2	0.82	78.8	28.8	79.4	79.0	78.0	76.7	73.7	2.92
Sant	25	=	74.8	75.1	75.5	77.3	9.82	8.62	80.3	81.0	80.3	6.62	78.2	75 7	0.87
	200	10	73.4	72.6	72.8	75.8	8.77	79.4	80.7	81.2	79.5	79.0	6.92	74.3	77.0
48 Utuado (San Salvador)	1.500	11	6.69	69.7	0.02	71.7	73.6	74.9	75.3	75.6	75.3	74.8	73.2	6.02	72.9
Viennes.	20	133	75.7	76.0	76.7	7.7.7	9.62	80.3	81.2	81.5	81.0	80.7	6.82	6.92	8.8
50 Yauco	200	11	73.7	73.9	74.4	76.7	79.2	80.0	79.5	80.1	6.62	.79.1	77.3	75.2	77.4
Means of 50 stations		6	73.0	73.1	73.5	75.4	77.1	78.3	78.8	79.2	78.8	78.1	76.6	74.4	76.4

Table V .- Mean Monthly and Annual Rainfall (1899-1911).

ATIONS. Eleva-ftent. No. Jan. Feb. March. April. May. June. July. tent. not. Jan. Feb. March. April. May. June. July. tent. not. Jan. Feb. March. April. May. June. July. t (Coloso) 1,700 9 3.85 1.21 4.03 5.59 4.79 7.94 9.17 t (Coloso) 35 13 2.48 1.89 3.01 4.67 9.40 12.44 9.17 8.88 4.99 4.79 1.09 4.71 8.88 6.88 4.68 7.73 1.09 4.74 5.89 4.67 4.89 6.88 6.88 6.88 4.73 4.73 4.88 6.89 4.89 4.69 4.74 5.89 4.69 4.74 5.89 4.88 6.88 4.74 4.88 4.69 4.69 4.69 4.69 4.69 4.69 4.69						, T	7	nai wa	miani	TOA2-T	.(11)					
Adjuntas 1,700 9 3.85 1.21 4.03 5.53 8.79 7.48 7.94 Aguadilla 25 4* 3.59 0.74 2.69 5.17 8.25 11.12 5.64 Aguadilla (Coloso) 25 4* 3.59 0.74 2.69 5.17 8.25 11.12 5.64 Aguas Buenus 600 1* 4.37 2.92 3.0 2.45 9.98 6.85 Alto dela Bundera 2.600 6 4.10 3.99 4.67 4.82 8.88 4.19 4.13 Alto de la Bandera 2.600 6 4.10 3.99 4.67 4.82 8.88 4.18 6.99 5.81 Alto de la Bandera 2.600 6 4.10 3.99 4.67 4.87 6.89 0.06 8.11 4.13 4.19 4.13 4.19 4.13 4.19 4.13 4.11 4.13 4.11 4.11 4.11 4.11 4.11 4.11 <th>STATIONS.</th> <th>Eleva tion in feet.</th> <th>No. of years</th> <th>Jan.</th> <th>Feb.</th> <th>March.</th> <th>April.</th> <th>May.</th> <th>June.</th> <th>July.</th> <th>Aug.</th> <th>Sept.</th> <th>Oet.</th> <th>Nov.</th> <th>Dec.</th> <th>Annual</th>	STATIONS.	Eleva tion in feet.	No. of years	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oet.	Nov.	Dec.	Annual
Aguadilla 25 4* 3.59 0.74 2.69 5.17 8.25 11.12 5.64 Aguadilla (Coloso) 35 13 2.48 1.89 3.01 4.67 9.40 12.44 9.17 Aguara Blemas. 20 13 1.42 1.23 1.65 1.94 4.57 6.99 1.77 9.467 4.57 9.467 4.53 8.68 4.10 4.11 4.77 4.67 4.67 4.67 9.88 4.10 4.13 4.67 4.69 3.92 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.72 4.72 </td <td>1 Adjuntas</td> <td> 1,700</td> <td>6</td> <td>3.85</td> <td>1.21</td> <td>4.03</td> <td>5.53</td> <td>8.79</td> <td>7.48</td> <td>7.94</td> <td>12.16</td> <td>11.03</td> <td>12.78</td> <td>8.73</td> <td>4 91</td> <td>88 44</td>	1 Adjuntas	1,700	6	3.85	1.21	4.03	5.53	8.79	7.48	7.94	12.16	11.03	12.78	8.73	4 91	88 44
Aguadulla (Coloso) 35 13 2.48 1.89 3.01 4.67 9.40 12.44 9.17 Aguare Buenas 20 1 4.37 2.92 5.30 2.58 5.59 4.73 8.68 Aguare Buenas 2,000 6 4.10 3.99 4.67 4.83 8.88 4.19 4.13 8.88 Alto de la Bandera 2,000 6 3.10 3.42 4.41 5.80 9.88 6.68 7.73 Afreciso 2,000 6 3.10 3.42 4.41 5.80 9.88 6.68 7.73 Afreciso 2,000 8 5.72 3.25 5.19 4.77 6.44 5.81 4.74 Barcos 2,000 8 5.72 3.25 3.47 4.88 6.63 6.47 5.61 Barcos 3,00 3,00 3.84 4.77 6.43 4.74 5.81 4.74 Barcos 3,00 3,00 3.8	2 Aguadilla		*	3.59	0.74	5.69	5.17	8.25	11.12	5.64	11.03	7.74	6.60	2.00	3.50	73.07
Aguas Buenas 600 1* 4.37 2.92 5.30 2.58 4.73 8.68 Aguirre Aguaire 20 13 1.42 1.23 1.65 1.94 4.45 6.99 4.73 8.68 Albonito 20 4.10 3.42 4.41 5.80 9.88 6.87 7.73 Alto de la Bandera 2.600 6 3.10 3.42 4.41 5.80 9.88 6.88 6.85 7.73 Alto de la Bandera 2.600 6 3.10 3.22 5.45 4.41 5.88 6.89 1.73 Bacupos 3.04 4.07 2.60 3.89 3.92 5.45 4.77 5.61 4.74 5.61 4.74 5.61 4.74 4.83 4.74 4.83 4.74 4.83 4.74 4.83 4.74 4.83 4.74 4.84 8.84 4.74 8.84 4.74 8.84 4.74 8.84 4.74 8.84 4.74	3 Aguadilla (Coloso)	35	13	2.48	1.89	3.01	4.67	9.40	12.44	9.17	8.96	9.13	8.79	7.62	3.29	80.85
Aguirre 20 13 1.42 1.23 1.65 1.94 4.45 6.99 5.31 Albonito 2,000 6 4.10 3.99 4.67 4.32 8.38 4.19 4.13 Añasco 2,000 6 4.10 3.99 4.67 4.32 8.38 4.19 4.13 Arecibo 75 9 4.67 2.92 3.69 3.92 5.16 3.64 4.62 4.62 Barcubey and Jobos 1,000 7 5.38 4.12 4.77 6.44 5.81 4.62 4.62 Barcubey and Jobos 1,000 7 5.38 4.12 4.77 6.44 5.81 4.74 Barcubey and Jobos 1,000 8 5.72 3.22 5.48 4.39 1.62 4.62 Bayon Roll 1,000 8 5.72 3.78 4.56 5.77 7.02 7.02 Cabo Roll 1,300 3 3.94 3.71 4.7	4 Aguas Buenas	009	*_	4.37	2.92	5.30	2.58	5.59	4.73	89.8	9.91	9.85	19.65	9.50	13.06	101.33
Albonntto Albonntto 2,000 6 4,10 3.99 4,67 4.52 8.38 4,19 4,13 Albonntto de la Bandera 2,600 6 3,10 3,42 4,41 5.80 9.88 6.68 7,73 Arecibo 7 5,38 4,12 4,77 6,44 5,81 4,62 4,62 Barupey and Jobos 1,000 7 5,38 4,12 4,77 6,44 5,81 4,62 4,62 Barros 2,000 8 5,72 3,22 5,48 4,58 6,63 6,75 7,02 4,78 Cabo Rojo 2,000 8 5,72 3,27 6,44 5,81 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 4,74 6,84 6,84 4,74 6,84 6,84 6,84 6,84 6,84 6,84 <	Aguirre	20	13	1.42	1.23	1.65	1.94	4.45	66.9	5.31	5.88	6.63	98.9	4.02	2.65	49.03
Allto de la Bandera 2,600 6 3.10 3.42 4.41 5.80 9.88 6.68 7.73 Arecibo 25 6 1.49 3.08 2.16 5.45 9.98 10.06 8.56 Bacupey and Jobos 1,000 7 5.38 4.12 4.77 6.44 5.81 4.62 4.74 Barros 2,000 8 5.72 3.32 5.48 4.39 10.02 4.74 5.61 Gabo Roll 2,000 8 5.72 3.82 5.48 4.39 10.02 4.74 5.61 Gabo Roll 1.38 2.2 5.81 3.87 6.03 5.47 7.08 7.08 Carbovand 1.350 13 8.53 2.71 3.36 4.56 5.51 6.30 9.84 Corporal 1.400 13 8.29 5.23 5.24 8.42 5.71 4.71 5.89 5.57 7.19 7.19	6 Albonito	2,000	9	4.10	3.99	4.67	4.32	8.38	4.19	4.13	5.85	6.75	8.02	7.64	5.82	67.86
Anasco 25 6 1.49 3.08 2.16 5.45 9.98 10.06 8.56 Arecibo Arecibo 7 4.67 2.92 3.69 3.92 5.19 3.65 4.74 Bacupey and Jobos 1,000 7 5.72 3.22 5.48 4.39 10.05 4.74 4.62 4.62 Bayamón 75 13 4.97 2.60 3.86 4.56 6.75 7.02 4.74 5.61 Cabo Rojo 250 3.04 1.75 3.07 6.03 5.47 6.38 Cabo Rojo 250 4.38 2.51 3.61 4.75 3.07 6.75 7.75 7.68 7.02 7.54 Cabo Royey 1.350 3.49 4.86 5.05 5.47 4.78 6.36 6.98 7.54 6.38 Cidra 1.400 13 8.49 4.86 5.05 5.47 7.75 8.24 8.47 Coamo	7 Alto de la Bandera	$\dots 2,600$	9	3.10	3.42	4.41	5.80	88.6	89.9	7.73	12.90	12.35	14.09	8.57	5.94	94.87
Arectbo Arectbo 75 9 4.67 2.92 3.69 3.69 3.61 3.65 4.74 Bacupey and Jobos 2,000 8 4.67 2.92 5.68 4.56 6.75 7.68 4.62 4.62 4.62 4.62 4.62 4.62 Barros 2.00 8 4.57 2.60 3.86 4.56 6.75 7.08 4.71 6.03 5.45 4.62 4.63 6.75 4.71 6.89 6.75 7.72	8 Anasco	25	9	1.49	3.08	2.16	5.45	86.6	10.06	8.56	11.54	7.18	7.39	5.37	4.50	26.76
Barcupey and Joboss 1,000 7 5.38 4.12 4.77 6.44 5.81 4.62 4.62 Barros 2,000 8 5.72 3.32 5.48 4.56 6.75 7.08 4.74 5.61 Bayanon 250 5 3.04 1.75 3.07 6.03 5.45 5.77 6.03 5.48 5.61 6.8 6.90 9.89 Cabo Rojo 250 13 4.38 2.51 3.06 3.45 5.77 6.03 5.45 5.77 7.02 7.54 6.38 Canfovanas 1.350 13 3.43 1.48 1.77 4.88 6.63 6.99 9.89 Cidra 3.00 3.43 1.48 1.77 3.80 4.26 5.75 6.73 6.09 9.89 Comerio 500 5 8.29 5.63 5.24 5.71 4.29 5.69 5.99 5.69 5.99 Conecio 5 <td< td=""><td>9 Aregino</td><td> 75</td><td>G.</td><td>4.67</td><td>2.95</td><td>3.69</td><td>3.92</td><td>5.19</td><td>3.65</td><td>4.74</td><td>5.03</td><td>4.81</td><td>5.03</td><td>6.64</td><td>6.54</td><td>56.83</td></td<>	9 Aregino	75	G.	4.67	2.95	3.69	3.92	5.19	3.65	4.74	5.03	4.81	5.03	6.64	6.54	56.83
Barros Barros<	10 Bacupey and Jobos	$\dots 1,000$	~	5.38	4.12	4.77	6.44	5.81	4.62	4.62	7.74	9.51	7.71	8.42	9.39	78.53
Bayamon 75 13 4.97 2.60 3.86 4.56 6.75 7.68 7.08 Cabo Rojo 250 5 3.04 1.75 3.07 6.03 5.47 6.38 Canóvanas 30 22 5.55 2.71 3.46 6.75 7.68 7.04 7.54 Canóvanas 30 22 5.55 2.71 3.46 6.87 7.54 6.38 Cardey 1.350 13 8.49 4.86 5.05 5.47 7.75 8.24 8.49 Common 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Common 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Common 300 1.3 8.49 4.86 5.02 5.24 6.41 4.19 8.13 Culebra 400 1.3 2.49 2.63 2.49 2.20 2	11 Barros	2,000	œ	5.72	3.32	5.48	4.39	10.02	4.74	5.61	4.61	7.91	8.67	8.89	7.36	76.72
Cabo Kojo 250 5 3.04 1.75 3.07 6.03 5.47 6.38 Caguas 250 13 4.38 2.51 3.06 3.45 5.57 7.02 7.54 Canovamos 1.350 13 8.49 4.86 5.05 5.47 7.75 8.24 8.49 Cidra 1.400 13 8.49 4.86 5.05 5.47 7.75 8.24 8.49 Commonio 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Conoxal 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Culebra 400 3 8.29 2.49 2.29 5.24 3.47 5.90 4.19 8.13 Destino 25 4 0.86 0.94 1.05 1.86 5.04 3.60 2.94 Destino 25 4 0.86 0.94 1.0	12 Bayamon	92	13	4.97	2.60	3.86	4.56	6.75	2.68	2.08	9.15	7.84	6.55	7.57	6.95	75.56
Taguas 250 13 4.38 2.51 3.06 3.45 5.57 7.02 7.54 Canofovanas 30 22 5.55 2.81 3.47 4.88 6.63 6.90 9.89 Cayey 1.350 13 3.59 4.86 5.05 5.47 7.75 8.29 6.89 6.89 6.89 9.89 Cidra 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Comerio 500 8 2.93 5.83 5.32 5.24 5.41 4.19 8.13 Corozal 400 13 6.01 4.13 4.71 5.99 6.44 5.62 7.19 Culebra 500 5 8.29 5.63 5.32 5.24 5.41 4.19 8.13 Dorado 25 4* 0.86 0.94 1.05 1.86 5.89 5.81 4.69 Rajardo 25 5 <td>13 Cabo Kojo</td> <td> 250</td> <td>īC</td> <td>3.04</td> <td>1.75</td> <td>3.07</td> <td>6.03</td> <td>5.43</td> <td>5.47</td> <td>6.38</td> <td>6.19</td> <td>6.24</td> <td>5.03</td> <td>5.43</td> <td>3.60</td> <td>57.66</td>	13 Cabo Kojo	250	īC	3.04	1.75	3.07	6.03	5.43	5.47	6.38	6.19	6.24	5.03	5.43	3.60	57.66
Canovanas 30 22 5.55 2.81 3.47 4.88 6.63 6.90 9.89 Cidra 1.350 13 3.53 2.71 3.85 3.99 5.86 5.96 9.89 Cidra 350 8 3.43 1.48 1.77 3.80 4.26 5.69 3.60 Common 500 5 8.29 5.63 5.32 5.24 5.41 4.19 8.13 Comerio 500 5 8.29 5.63 5.32 5.24 5.41 4.19 8.13 Culebra 50 6 1 4.01 4.13 4.71 5.99 6.44 5.62 7.19 Dorado 2 6 1 4.86 0.94 1.05 1.86 5.99 5.69 3.04 4.69 Dorado 2 4 0.86 0.94 1.05 1.86 5.99 5.82 6.44 5.62 7.19 Fajardo <	14 Caguas	250	<u></u>	4.38	2.51	3.06	3.45	5.57	7.02	7.54	7.55	7.21	7.25	5.93	5.41	66.88
Cayey Cayey Cayey Cayey Cayey Cayey Cayey Cayey Caye	Is Canovanas	30	21 21	5.55	2.81	3.47	4.88	6.63	6.90	68.6	8.78	7.17	6.35	9.49	7.92	79.84
Cudra 1,400 13 8.49 4.86 5.05 5.47 7.75 8.24 8.49 Common 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Concard 400 13 6.01 4.17 5.99 6.44 5.62 7.19 Culebra 50 5 3.39 2.49 2.20 2.29 5.04 3.00 2.94 Destino 25 4* 0.86 0.94 1.05 1.86 5.69 3.02 2.40 Dorado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Guānica 15 10 1.28 0.58 1.21 3.99 5.82 6.36 5.94 Guayama 17 11 1.67 1.45 2.07 2.15 5.38 5.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93	16 Cayey	$\dots 1,350$	133	3.53	2.71	3.35	3.99	5.36	7.54	6.35	7.72	7.30	6.92	6.65	5.19	66.61
Common 350 8 3.43 1.48 1.77 3.80 4.26 5.60 3.60 Corozal 400 5 8.29 5.63 5.32 5.24 5.41 4.19 8.13 Culebra 50 5 3.39 2.49 2.29 5.29 5.44 5.2 7.19 Destino 25 4* 0.86 0.94 1.05 1.86 5.69 3.02 2.40 Dorado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Fajardo 30 13 3.88 2.51 3.33 3.99 5.82 5.94 Guayama 17 11 1.67 1.45 2.07 2.15 5.36 5.94 Guayama 100 13 4.21 2.49 3.63 4.99 5.78 4.69 Isabela 1,400 12 7.1 2.71 3.34 4.92 3.39	17 Cldra	1,400	13	8.49	4.86	5.05	5.47	7.75	8.24	8.42	10.93	7.32	6.77	7.01	8.50	88.81
Comerio 500 5 8.29 5.63 5.32 5.24 5.41 4.19 8.13 Culebra 400 13 6.01 4.71 5.99 6.44 5.62 7.19 Culebra 5 4 0.86 0.94 1.05 1.86 5.69 5.94 Destino 25 4* 0.86 0.94 1.05 1.86 5.69 3.02 2.40 Dorado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Fajardo 25 5 5.83 2.51 3.33 3.99 5.82 6.36 5.94 Guayama 17 11 11 17 11 167 1.76 2.15 5.38 3.54 1.91 Guayama 100 13 4.21 2.49 3.63 4.93 9.76 5.58 6.94 5.73 Isabela 1,400 12 2.71 2.71	To Coamo	350	œ	 	1.48	1.77	3.80	4.26	5.60	3.60	5.97	5.26	6.81	6.43	4.04	52.45
Corozall 400 13 6.01 4.13 4.71 5.99 6.44 5.62 7.19 Destino 26 4 0.86 9.24 2.20 2.29 5.04 5.09 2.41 5.09 5.94 Dorado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Pajardo 25 5 5 8 2.51 3.33 3.99 5.82 6.36 5.94 Guayama 17 11 128 0.68 1.82 2.61 3.59 5.82 6.36 5.94 Guayama 100 13 4.21 2.49 3.63 4.99 5.73 4.69 5.73 Isabela 275 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Jayuya 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.65 Juana Piaz 2.06 <td>19 Comerio</td> <td></td> <td><u>ت</u></td> <td>8.29</td> <td>5.63</td> <td>5.32</td> <td>5.24</td> <td>5.41</td> <td>4.19</td> <td>8.13</td> <td>9.55</td> <td>8.02</td> <td>5.02</td> <td>8.36</td> <td>9.27</td> <td>82.43</td>	19 Comerio		<u>ت</u>	8.29	5.63	5.32	5.24	5.41	4.19	8.13	9.55	8.02	5.02	8.36	9.27	82.43
Utlebra 50 5 3.39 2.49 2.20 5.04 3.00 2.94 Destino 25 4* 0.86 0.94 1.05 1.86 5.69 3.02 2.40 Dorado 30 13 3.88 2.51 3.33 3.99 5.82 6.36 5.94 Guánica 15 10 1.28 0.68 1.82 2.61 3.96 5.84 5.94 Guayama 17 11 1.67 1.45 2.07 2.15 5.58 6.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 2.75 13 4.00 2.71 2.71 3.73 4.93 5.78 4.92 3.89 Jsolina 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jsylva 2.00 3* 8.45 6.76 6.85		400	133	6.01	4.13	4.7	5.99	6.44	5.62	7.19	7.92	8.26	8.48	8.06	7.52	80.33
Described 25 4** 0.86 0.94 1.05 1.86 5 69 3.02 2.40 Porado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Fajardo 30 13 3.88 2.51 3.99 5.82 6.36 4.69 Guánica 15 10 1.28 0.68 1.82 2.61 3.96 3.59 5.94 Guayama 17 11 1.67 1.45 2.07 2.15 5.58 6.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 1,400 12 4.21 2.71 2.71 3.33 3.99 5.78 4.93 9.76 6.81 6.66 Jayuya 1,500 3* 4.31 6.41 7.03 4.85 1.78 3.77 Juana Diaz 20 1.8 5.76 <td< td=""><td></td><td></td><td>م</td><td>3.30 6.30</td><td>2.49</td><td>2.20</td><td>2.29</td><td>5.04</td><td>3.00</td><td>2.94</td><td>5.30</td><td>5.07</td><td>4.16</td><td>6.57</td><td>3.01</td><td>45.46</td></td<>			م	3.30 6.30	2.49	2.20	2.29	5.04	3.00	2.94	5.30	5.07	4.16	6.57	3.01	45.46
Dorado 25 5 5.83 3.95 3.48 4.51 4.57 3.50 4.69 Fajardo 30 13 3.88 2.51 3.33 3.99 5.82 6.36 5.94 Guayama 15 10 1.87 1.45 2.07 2.15 5.58 6.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 2.75 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Jayuya 3 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Jayuya 3 4.31 6.41 7.03 12.02 6.81 6.06 Juana Diaz 2.00 1.61 2.73 4.58 5.18 3.77		25	4 1	98.0	0.94	1.05	1.86	5.69	3.05	2.40	6.74	6.59	5.38	4.45	3.18	42.16
Fajardo 30 13 5.88 2.51 5.33 3.99 5.82 6.36 5.94 Guayama 17 10 1.28 0.68 1.82 2.61 3.96 3.54 1.91 Guayama 17 11 1.67 1.45 2.07 2.15 5.58 6.94 7.65 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 2.75 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Isolina 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jayuya 2.00 3* 8.47 2.26 5.30 3.14 3.77 Juana Diaz 2.00 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77			ر ا	5.83	3.95	3.48 8 (1.51	4.57	3.50	4.69	6.77	5.40	5.23	6.77	7.20	61.90
Guayama 15 10 1.28 0.68 1.82 2.61 3.96 3.54 1.91 Guayama 17 11 1.67 1.45 2.07 2.15 5.58 6.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 2.75 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Isolina 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jayuya 2,70 3 8.47 8.55 5.05 6.68 5.30 3.14 6.85 Juana Díaz 200 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77		90	F .	88.8	2.51	 	3.09	5.85	6.36	5.94	5.85	7.90	8.25	8.75	5.99	68.51
Guayama 17 11 1.67 1.45 2.07 2.15 5.58 6.94 5.73 Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 2.75 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Isolina 1.400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jayuya 2.00 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77		15	10	1.28	0.68	1.82	2.61	3,96	3.54	1.91	4.12	4.00	5.49	4.46	1.29	35.16
Humacao 100 13 4.21 2.49 3.63 4.93 9.76 9.24 7.66 Isabela 275 13 4.00 2.71 2.71 3.73 4.92 3.39 Isolina 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jayuya 200 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77		17	Ξ	1.67	1.45	2.02	2.15	5.58	6.94	5.73	5.02	7.37	7.43	5.38	2.73	53.52
Isabela 275 13 4.00 2.71 2.71 3.93 5.78 4.92 3.39 Isolina 1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 Jayuya 8.77 2.85 5.05 6.68 5.30 3.14 6.85 Juana Diaz 200 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77	Z/ Humaeao	001	<u></u>	4.21	2.49	3,63	4.93	9.16	9.24	99.7	9.56	11.43	9.50	8.13	6.23	86.47
1,400 12 5.73 4.31 6.41 7.03 12.02 6.81 6.06 6.85 1.50 3.14 6.85 1.2 2.00 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77	28 Isabela	275	n 12	4.00	2.71	2.71	3.93	5.78	4.95	3.39	5.74	5.02	5.34	8.24	80.9	57.86
	29 Isolina	1,400	21 [*]	5.73	4.31	6.41	7.03	12.02	6.81	90.9	8.35	11.12	99.6	10.12	8.80	96.42
77. 200 13 0.89 0.70 1.61 2.73 4.58 5.18 3.77	30 Jayuya	1,500	00 -	8.47	2.85	5.05	6.68	5.30	3.14	6.85	10.30	7.33	9.71	8.54	7.95	82.17
	31 Juana Díaz······	200	<u></u>	0.89	0.70	1.61	2.73	4.58	5.18	3.77	6.20	6.70	8.54	5.32	1.94	48.16

32 June08	250	*	3.82	4.10	2.66	1.88	5.66	6.02	4.21	17.21	2.85	4.00	89.9	5.75	64.81
33 La Carmelita (A)	1.500	6	2.93	2.88	5.33	6.65	10.83	7.25	7.61	11.45	13.06	15.20	11.07	6.75	101.00
34 La Carmelita (B)	2,500	00	4.26	3.91	6.41	6.93	11.84	7.28	7.77	13.09	14.23	15.86	12.09	7.58	111.25
35 Laiss	100	*	2.79	0.73	2.21	2.28	4.69	7.96	6.00	2.04	5.42	6.57	6.84	3.10	50.63
36 Lares	1.400	6	3.69	3.48	5.34	7.55	10.30	8.49	8.19	9.32	8.91	12.22	9.19	89.9	93.36
	1,000	0	3.16	2.41	6.20	6.90	14.43	10.49	10.23	12.83	13.48	12.31	10.56	4.76	107.76
38 Luguillo (La Pecla A)	500	6.	7.22	3.04	6.29	10.60	14.98	13.57	15.15	11.56	11.83	14.28	16.22	9.48	134.22
_	1.200	6	8.21	3.39	6.54	11.27	14.94	13.75	14.56	11.14	12.24	13.94	16.23	9:36	135.57
_	9	11	4.97	3.56	4.83	4.90	4.68	4.68	6.02	5.39	89.9	6.43	8.83	2.90	68.87
41 Maricao	1.500	10	2, 13	3.64	4.27	7.44	12.80	86.9	11.87	12.44	12.18	11.95	11.03	4.88	101.61
42 Maunabo	50	13	4.55	3.20	3.76	3.32	7.07	9.50	7.35	7.91	10.21	10.41	89.7	6.07	81.03
43 Mavagüez	80	13	2.11	1.90	3.37	5.13	8.04	9.43	10.89	10.94	9.71	8.53	7.01	2.95	80.01
44 Morovis	750	6	5.25	3.38	6.38	5.74	8.35	5.63	6.46	11.06	8.61	10.01	8.62	7.70	87.19
45 Naguabo	130	*	5.85	5.76	2.88	5.69	9.45	5.80	6.67	8.07	14.49	8.13	8.86	8.85	90.47
46 Pennelas	200	*	2.08	2.09	2.61	7.46	8.52	5.29	4.38	96.7	6.81	9.41	2.06	3.24	66.91
47 Ponce	80	13	1.06	0.69	1.52	2.20	3.15	4.74	3.27	5.27	5.74	66.9	3.40	1.60	39.63
48 Potala	20	*	0.98	0.41	1.04	2.72	4.35	2.39	2.35	6.44	4.88	4.17	3.66	1.84	35.23
49 Puerta de Tierra (San Juan)	20	¢3	3.53	1.38	2.52	5.75	3.76	6.90	7.64	8.07	7.89	8.07	8.85	2.51	66.82
50 Rfo Blanco	100	00	5.71	5.68	5.83	6.00	10.24	10.86	10.46	11.22	13.96	11.90	9.92	8.49	110.27
	75	10	4.42	2.99	3.85	4.93	6.40	6.41	6.27	9.12	7.60	5.85	6.50	7.83	73.10
	375	**	2.78	1.93	3.01	4.00	5.39	3.38	4.74	7.92	7.30	7.39	8.50	2.71	59.05
53 San Germán	350	13	2.21	2.33	3.48	. 6.45	6.43	5.53	5.64	7.41	6.11	8.88	8.11	4.06	66.64
	100	13	4.79	2.20	3.12	3.95	5.22	5.97	6.07	7.26	6.75	5.60	98.9	6.50	64.26
55 San Lorenzo	200	10	3.19	2.40	4.25	4.54	86.9	12.64	9.58	8.00	10.14	9.43	7.04	5.08	83.27
San	350	5	4.86	2.66	4.97	8.81	11.18	12.52	8.07	11.86	11.87	13.48	7.83	5.11	103.22
	35	1	1.09	0.74	1.15	1.54	4.73	3.77	3.27	3.73	5.15	6.04	4.33	2.75	38.29
58 Utnado	200	* *	3.08	0.60	4.08	7.33	16.17	9.93	6.31	6.77	13.60	11.55	11.83	5.61	96.86
. <u>.</u>	1,500	11	4.15	2.15	4.55	5.74	9.54	5.30	5.75	7.23	10.69	9.39	9.77	5.98	80.24
_	50	*_			4.49	3.63	3.49	8.03	12.72	6.03	6.88	13.69	6.07	:	:
61 Vieques	50	6	2.46	2.34	2.19	1.77	3.55	3.90	3.85	5.19	7.25	6.47	4.40	4.21	47.56
69 Yahiroa	75	10	4.60	3.64	3.34	4.25	8.25	8.89	6.98	9.52	12.69	10.38	7.84	6.20	86.55
63 Yauco	200	Ξ	2.13	66.0	2.61	3.19	4.48	5.28	3.87	5.84	5.70	6.82	5.33	1.76	48.00
Means for 50 stations		10	4.00	2.77	3.91	5.00	7.62	7.03	6.87	8.28	8.57	8.69	7.89	5.71	76.34

*Not included in determining final mean monthly values.

Table VI.—Meteorological Summary for Porto Rico, 1899-1911. Latitude, 18° to 18°30'; Longitude, 65°30' to 67°10' W.; Average altitude, 700 feet.

Weather Bureau.)
United States
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(Observations

noit	Prevailing direc of the wind,	17.	NE	E	Ħ	田	도	Ы	田	B	Ħ	떠	B	H	B		:
š	Cloudy.	16	9	7	9	20	œ	7	7	7	œ	∞	7	9	79	38	59
No. of days.	Partly cloudy.		6	00	6	6	10	10	10	10	90	11	10	6	115	137	86
No	С]еат.	114	16	16	16	16	13	13	14	14	12	12	13	16	171	186	150
rain.	Least.	13	က	ç,	7	7	ro	9	7	9	œ	.10	9	₹		:	
Number of days with rain.	Greatest.	12	25	66	23	50	23	12	35	53	58	50	87	53		:	:
of da	, 92вг9уА	11	13	10	27	11	15	15	15	15	16	16	7	17	167	182	156
·s.	treatest in 24 sinod	10	8.10	4.55	9.32	12.23	8.00	90.6	17.02	23.00	18 29	10.30	12.90	7.50		:	
in inche	Least monthly.	6	154	0.51	1.85	1.16	4.58	2.85	4.96	4.98	6.23	5.13	5.35	1.68		:	:
Rainfall, in inches.	Greatest monthly.	8	7.83	4.51	7.38	7.69	13.78	16.19	19.73	16.11	10.79	12.64	13.90	9,19		:	:
RE	Ауетаде.	۲.,	4.00	2.77	3 91	2.00	7.62	7.03	6.87	8.28	8.57	8.69	8.89	5.71	76.34	93.82	63.54
it.	Extreme mini- mum.	9	45	43	10	48	48	49	20	52	16	55	46	9†			
ahrenhe	Ехтгете тях!- тит.	īĊ	97	86	86	66	66	100	66	103	101	100	85	97		:	
grees F	Ауегаgе daily гапgе,	7	19.6	1.07	20.4	198	17.8	0.81	18.5	18.3	185	18 8	18.4	18.4	18.9	:	
re, in de	Lowest month- ly mean.	30	72.0	71.2	7.17	74.2	75.8	9.92	78.3	4.87	78.3	27.6	75.9	72.6		:	
Temperature, in degrees Fahrenheit.	Highest month- ly mean.	. ⊕≀	74.2	75.3	75.7	277.5	79.3	79.7	6.62	9.08	1 .08	79.4	78.3	76.3		:	
Теі	Меап.	I	73.0	73.1	73.5	75.4	77.1	78.3	78.8	79.2	78.8	78.1	76.1	74.4	1		75.6
*.	Month.		anuary	February	March	4 pril	Мау	'une	1 uly	August	september	October	November	December	-	Mean. Highest	(Towest

CHAPTER III.

HISTORY.

Discovery, Settlement, Foundation of Colonial Government, Change of Sovereignty, and American Occupation—Seal of Porto Rico—List of Governors.

ROM the time of its original discovery the beauty, evident fertility and agreeable climate of Porto Rico have been the subject of comment. To these charms, which attracted the attention of the Spanish explorers, were added persistent rumors of untold wealth, arising from accounts of grains and nuggets of gold exhibited by the aborigines. The early history of Porto Rico is but an epitome of that of the settlement of the rest of the Western Hemisphere, with its dangers, deeds of bravery, forlorn hopes and accomplishments, and eras of depression followed by prosperity.

Christopher Columbus, no longer considered a dreamer, but made by the King of Spain ruler of all lands he might discover, set forth on his second voyage to the New World under very different circumstances from those attending his initial undertaking. Leaving Cádiz on September 25, 1493, stopping at the Canary and other islands en route to Hispaniola (Santo Domingo), he sighted, on November 16, 1493, the Island of Porto Rico, which was recognized as the largest island that had been seen on that voyage. Rounding the southwestern point of the Island, the fleet sailed along near the coast, anchoring three days later, according to the account of one of the party, "in the last angle of the west coast," at a place called by them "Aguada," near the present site of the municipality of Aguadilla. Here a supply of fresh water was obtained for the fleet, and thus the name of the place, which is a nautical term signifying the furnishing of water to vessels. The historic spot was marked by the erection, in 1893, of a monument to commemorate the

Columbus was accompanied on this voyage by Juan Ponce de León, who was en route to Santo Domingo, that being considered the principal island, where the governor of the archipelago, Nicolás de Ovando, resided. Ponce de León returned to Porto Rico in 1508, landing at Aguada. From here he journeyed toward the east, and discovered the harbor now known as the

port of San Juan, which he called "Puerto Rico." Continuing his explorations through the Island, he discovered the harbor of Guánica, and later, leaving some of his companions behind, returned to Santo Domingo, where he informed Governor Ovando and gave him further accounts of the beauty and wealth of the new country.

On the strength of Ponce de León's representations Ovando secured additional men and supplies for him, and he returned to Porto Rico to continue the work of exploration and settlement. On this voyage, in 1509, his destination was the bay he had named "Puerto Rico," where he landed, and some distance from the shore, in a site hidden by dense forests and surrounded by a natural barrier of hills and swamps, founded the first settlement, which he named "Caparra," made by the colonists in the Island. The location selected was strongly opposed by some of his followers, although in the opinion of their leader it was well located to prevent surprises by land or sea.

The settlers busied themselves in the erection of houses, the exploitation of river sands for gold, and in the raising of live stock and such vegetables and fruits as were necessary for their subsistence. Cristóbal Sotomayor, who accompanied Ponce de León on this trip, was detailed by him to explore the western part of the Island in search of gold, of which accounts had been received from the natives. Sotomayor attempted to found a settlement near the harbor of Guánica, but being unsuccessful returned to Aguada.

Having attended to the foundation of a permanent settlement in the new country, Ponce de León returned to Santo Domingo for his family, then living on his estates in that island, and for further supplies. About this time Diego Columbus, who had been made Governor of the West Indies, arrived in Santo Domingo. Although it is understood that the King of Spain was satisfied with the work that Ponce de León had done in Porto Rico, and had instructed Diego Columbus to give him his support, he did not do so, but instead sent Juan Cerón from Santo Domingo to govern the Island. Upon his arrival he was arrested by Ponce de León and sent to Spain, whereupon, sustaining the action of Columbus, King Ferdinand confirmed the appointment of Cerón, and, in 1511, he returned to Porto Rico.

In the meantime Governor Columbus, in view of the small number of men available to send on the expeditions to Porto Rico, ordered the assignment to each Spaniard detailed to duty in the Island of a certain number of Indians to do the manual labor required in building the settlements, getting the gold from the rivers and cultivating the ground.

The Indians, who up to this time had been peacefully disposed and characterized by their hospitality toward the Europeans. rebelled, and trouble for the settlers immediately began. Indians were for a while restrained from acts of violence by a belief in the immortality of the colonists. This theory, however, they tested by an experiment on the luckless person of one of the settlers, named Salcedo, whom they thrust beneath the waters of a river until life was extinct, and to make the proof more conclusive kept watch over the remains for a number of days, until Nature afforded them full assurance that the theory was groundless. This incident was followed by plans for a general rebellion and massacre of the settlers, the first victims being Cristóbal Sotomayor and some of his companions. took the village of Aguada, murdering its inhabitants and burning its houses. One of the settlers who escaped succeeded in reaching Caparra and advising Ponce de León, who with a strong escort, immediately commenced an active campaign against the Indians. So many of them were slain and others captured and consigned to slavery as to put an end to trouble from that source for a time.

Governor Cerón having arrived in Porto Rico in 1511, Ponce de León immediately left the Island and went on his famous expedition in quest of more gold and of the fountain of perpetual youth, which the Indians told him could be found on an island not far distant. He returned from this expedition to report the discovery of Florida, although the magic fountain did not re-In 1513 Governor Columbus recalled Cerón ward his efforts. from Porto Rico and sent Rodrigo de Moscoso to take control of the Island. Not long after that he was removed from office, and Ponce de León, who had returned to Spain, received from King Ferdinand, in commendation of his exploits, the title of "Captain of Sea and Land," and authority over all sea and land operations in and about Porto Rico and the Windward Islands. In addition there was conferred upon him for life the title of "Regidor," or ruler. On June 23, 1516, occurred the death of King Ferdinand. Existing documents show that during his life he took a particular interest in the colonization of Porto Rico, and devoted much cere and attention to its affairs. who, in 1511, granted to the Island the Coat of Arms which today constitutes its great seal. Many other acts indicated his deep interest in the welfare and progress of the country, but during the years that followed his death the attention devoted to Porto Rico was to a certain extent diminished.

In 1521, the opposition to the location of the first settlement, Caparra, resulted in a Royal Decree changing the site of the chief city to the place where San Juan now stands. At that time it was known as the "City of Porto Rico."

In 1519 the marvelous accounts brought from Mexico by Cortez as to its fabulous riches reached the Spanish colonists in the West Indies. Inspired by the success of his contemporary and believing the "island" of Florida that he had discovered would prove equally rich, Ponce de León advised the King of his intention to explore its interior, and on February 20, 1521, departed from Porto Rico on what proved to be his final voyage. Having been wounded by an arrow and severely injured, he left Florida and went to Havana, where he died shortly after. War had broken out between Spain and France. The latter sent vessels to attack the Spanish colonies, and in 1528 a French galley landed troops on the coast near San Germán and sacked that village. Occasional uprisings among the Indians, as well as warnings of the probability of attacks from foreign foes, added to the feeling of insecurity and stimulated the colonists in the work of fortifying their settlements. An appeal for authority and funds to enable the construction of a fort were sent to Spain. On May 13, 1529, the Spanish Government authorized the erection of the Fortaleza, at San Juan, but as the money to pay for the work was to be obtained from a tax on imports the plan was not approved until some time in 1531. The actual work of construction did not commence until a year or two later, but limited funds made progress slow until, in 1538, additional money was obtained from Spain. From 1535 to 1540 the colonists met with many discouragements. They were attacked by the Indians and by the French, were more or less neglected by the Home Government, and the production of gold upon which they had based so many hopes did not meet with their expectations. They became so disheartened that when the news of wonderful discoveries in Peru attracted their attention the Colonial Government felt obliged to adopt the most extreme measures to prevent their leaving Porto Rico. Thereupon, the colonists, realizing that they would have to make the best of the situation, began to devote more attention to the raising of cattle and crops.

and the records show the first shipment of sugar from the Island in 1533.

In 1543 another attack was made upon the Island by the French, and the village of San Germán again burned to the ground. Philip II became King of Spain in 1556, and he in turn took up the war with France, which resulted in a renewal of the attacks of the French galleys on the Spanish colonies in the West Indies.

In 1586 the difficulties encountered by the Island Government became such a burden upon its finances that it was necessary for the home Government to draw upon the treasury of Mexico to aid it. War broke out with England, and fears of attack from the English fleet under Sir Francis Drake led to hastening the completion of El Morro, on the promontory commanding the entrance to San Juan Harbor. Apparently, however, the English saw no inducement to attack the settlements in Porto Rico, until, in 1595, a fleet of Spanish vessels carrying treasure from Mexico to Spain was driven by storm into the port of San Juan. The commander of the English fleet, having heard of the arrival, sent vessels to attack the port. The soldiers and sailors were defeated, however, and driven back to their vessels. The English returned to Porto Rico in 1597 with a fleet of 20 vessels, in command of Lord Cumberland, who landed a force on the coast near San Juan, at the place now called Santurce. The Spanish soldiers met them at San Antonio Bridge, but were overcome, and the English marched on to the city of San Juan and cap-Morro Castle was beseiged and soon surrendered. Lord Cumberland at once inaugurated a plan to take control of the entire Island, but the work was scarcely started before disease broke out among his soldiers and he was obliged to abandon the Island, taking away with him only such trophies of war as he had been able to find in the churches and among the supplies stored in El Morro. Up to 1599 Porto Rico had remained under the jurisdiction of the Governor of Santo Domingo, but by a Royal Decree of January 26 of that year it was made an independent Spanish colony.

On September 24, 1625, a fleet of Dutch war vessels was sighted from Morro Castle. War had been declared between Spain and The Netherlands. The Spanish garrison offered little resistance when the Dutch vessels entered the harbor, where they came to anchor and the forces immediately landed. Hasty preparations were made by the garrison to resist attack, but the

invaders took the city and stationed artillery around Morro Castle, which they bombarded for several days. The garrison, however, refused to surrender. The Dutch continued their bombardment and set fire to a large part of the city, but were finally driven back to their fleet, which sailed away leaving a disabled vessel behind.

During the years 1637 to 1641 Dutch, French, English, and Portuguese pirates, who made Turk's Island, north of Haiti, and other small adjacent islands their headquarters, were harassing vessels and West Indian ports, and the names of Morgan, Le Grand, Cook, Captain Kidd, and other notorious adventurers had become terror inspiring. Porto Ricc's shores did not offer the same inducement of gold and treasure that attracted them to other islands, although the ships en route from Mexico with funds for the maintenance of the Porto Rican Government were repeatedly made the object of attack and loot. Being frequently deprived of this income proved a source of considerable embarrassment.

In spite of internal difficulties, storms, attacks from without by foreign enemies and the capture of their treasure vessels by buccaneers, the work of settlement progressed, and at the end of the seventeenth century there had been established in Porto Rico, in addition to San Juan and San Germán, the towns of Arecibo, Aguada, Ponce, Coamo, and Loiza, with enough inhabitants to warrant the recommendation by the Governor that they be designated as separate municipalities. Tributary to these towns were the settlements of Añasco, Hormigueros, Manatí, Guayama, Humacao, and Fajardo. About the beginning of the eighteenth century the alliance of the English and Dutch against France and Spain was formed. In August of 1702 two English vessels landed near Arecibo and made an attempt to capture that town, but after a sharp struggle the attempt was abandoned. This was followed in November of the same year by an expedition from St. Thomas, which landed near Loiza, but the invaders were again repulsed.

In 1718 the Porto Rican Government sent an expedition to Vieques, which had been settled by smugglers and other outlaws, and the inhabitants, with many slaves, arms, ships, and other trophies, were captured.

History records the introduction of coffee culture in 1755, and additional attention was gradually being devoted to the cultivation of sugar-cane and other crops. Porto Rico, however.

in common with other Spanish colonies, was beginning to feel the effects of trouble in Europe. The governments of France and Spain renewed their alliance against the English, and active war followed. English fleets laid siege to Havana and captured Other Spanish possessions in the West Indies were taken and Porto Rico was in imminent danger, when Spain, deciding to take a decisive stand, sent men and money to strengthen the defenses of San Juan. Morro Castle was reinforced, Fort San Cristóbal was erected and Fort San Gerónimo fortified by walls, pits and batteries. Much of this work was completed about 1776, but San Juan was not called upon to defend itself until 1797, when, on the morning of April 17, the English fleet was sighted off the coast. The Spanish troops were aided by men from two French vessels in port at that time. On the 18th of April 3,000 English troops landed at Santurce under cover of a heavy fire from the ships. While heavy canonading continued on both sides the English proceeded to throw up lines of intrenchments and batteries near the coast, on Miramar Hill, and at Miraflores. The outlook indicated a long and tedious siege, but on the night of April 30 and the morning of May 1, 1797, the English suddenly abandoned the attack and embarked, leaving in the hands of the garrison many prisoners, as well as cannon, ammunition and camp equipment.

In special recognition of the services of the citizens and soldiers in defending the capital city on this occasion, the King of Spain bestowed a title of honor upon the municipality. Later a statue of Ponce de León, made from the cannon abandoned by the English, was erected in the Plaza San José, in the city of San Juan.

In 1800, the free inhabitants of Porto Rico numbered 155,000, and the population was steadily increasing. Trade with countries other than Spain was permitted by the home Government, and resulted at once in an increased industrial activity in the Island and a material expansion of its commerce. Sugar and coffee culture were assuming importance. Some 36 towns or settlements forming the centers of agricultural districts throughout the Island were in existence. The old, unmilled coins which had been in circulation since 1550 were replaced by a new coinage, and paper money issued against the revenue received from Mexico was placed in circulation. The revenues of the Island from import taxes were increasing, and contraband traffic, which had been decreasing, was further diminished by the creation of

ports of entry at Aguadilla, Cabo Rojo, Ponce, and Fajardo and the establishment there of custom-houses through which cargoes from foreign ports might be entered.

Spain had in 1795 ceded its interests in Santo Domingo to the French, but in 1809 residents of that island, with the aid of Spanish troops recruited in Porto Rico, succeeded in regaining the island for the Crown. Spain itself was at this time involved in a six-year struggle, which commenced on May 2, 1808, against the forces of Napoleon. Notwithstanding this the Spanish Government was able to devote some attention to its colony in Porto Rico, and on July 6, 1808, the Cortes authorized Porto Rico to send its first representative to the mother country. In accordance with the provisions of the Spanish Constitution of 1812, drawn up by the Cortes, Porto Rico's Diputación Provincial, a body possessing a few legislative powers, but whose functions were chiefly executive, met in 1813. When Fernando VII became King in 1814 he abolished the Cortes, withdrawing from Porto Rico the constitutional privileges it had just commenced to enjoy. Nevertheless, along other lines he adopted a comparatively liberal policy with regard to Porto Rico, encouraging the extension of its colonization and permitting trade with foreign countries, including the United States, the Government of which had been recognized by Spain, but limiting commerce to Spanish ships. The rebellion of his subjects, however, soon forced the King to recognize the Constitution of 1812 and restore the Cortes, whereupon Porto Rico was again allowed the privilege of a representative therein. Under the same Constitution, 45 municipal councils, delegates to the Insular Assembly, and judges were elected. The publication of newspapers was resumed and a movement was instituted advocating public instruction, the few schools in existence up to that time having been conducted by the church. In 1821 a wave of rebellion passed over the West Indies, and on December 1 of that year Santo Domingo declared its independence and offered to cooperate with Porto Rico in a similar movement, but the majority of public sentiment in the latter island proved loyal to the Crown and the project was abandoned. Piracy was still being carried on in the vicinity of the West Indies, and in 1823 had become such a menace to commerce that the United States Government sent vessels in command of Commodore Porter with orders to clear the seas of all suspected craft. He secured the cooperation of officials in Porto Rico and captured several vessels in adjacent waters. Porter's activities resulted in clearing the South Atlantic and the Caribbean Sea of the pirates with which it had been infested.

Porto Rico benefitted greatly by the removal of this danger, and 1,240 vessels are recorded as having entered its ports in 1834. Importations increased from \$2,000,000 in 1823 to nearly \$4,000,000 in 1835, while exportations showed a corresponding development. A new source of revenue was established in 1829 in the form of a Government lottery. The population of the Island had increased to 315,000.

Santo Domingo again submitted to the Government of Spain in 1861, but continued uprisings in that dependency resulted in its abandonment in 1865. Much sympathy and aid were accorded the Dominicans by persons in Porto Rico, and the fear that the rebellion might spread to Porto Rico led to the decree of November 29, 1865, calling commissioners from Cuba and Porto Rico to Spain for conference with a view to carrying out the promise of special laws for the colonies. The commissioners to Spain, among other recommendations, advocated the abolishment of slavery in Porto Rico without indemnity to owners. This was one of the paramount issues of the day and was stimulated by concurrent events in the United States. The efforts of the commissioners in Spain were not successful.

Much discontent followed, and the situation was assuming a critical aspect when, in 1868, Isabela II, in cooperation with the Cortes, turned her attention to the trend of affairs in Porto Rico. During 1869 the home Government authorized a general election for the selection of nine delegates to the Cortes. Representations of this delegation were rewarded by promises of wider liberties. A local governing body, known as the "Diputación Provincial," with limited powers of legislation subject to the approval of the Governor, was elected and began its sessions on April 1, 1871.

The efforts of the party favoring the abolition of slavery resulted in the decree of June 23, 1870, liberating all slaves over sixty years of age and children under three years of age. It was not until 1873, and the establishment of a republic in Spain, that all slaves were freed, the owners being indemnified by means of a loan guaranteed by insular revenues. No disorder of any kind followed this act, although 34,000 slaves are said to have been liberated, nor was the result unfavorable to commercial conditions, as is apparent from the value of exports

prior to and after 1873, which increased during the ten years from 1867 to 1877 from \$6,022,502 to \$10,460,959. The value of the import trade also shows a development during the same period from \$8,551,892 to \$13,119,847. In 1870 an English cable company established a landing in Porto Rico, thereby connecting the Island by wire with other parts of the world.

From 1870 to 1873 Porto Rico was ruled by six successive Governors. Political parties in the Island were affiliated with similar parties in Spain, and as the political complexion of Spain varied, so did that of Porto Rico. A municipal law containing certain provisions and other favorable measures was extended to Porto Rico, schools of higher education were established and a new era seemed about to dawn, when in 1874 the republican form of Government in Spain was dicontinued and substituted by a provisional Government. The Island legislature and city councils were dissolved. Constitutional guarantees were suspended, and the censorship of the press reestablished. The "Instituto Civil," a school established in 1873, was closed, and the local militia abolished. Later in the year Alfonso XII became King, and the local assembly, the town councils, and the "Instituto Civil" were restored.

A popular assembly was held in Ponce in 1887, which, while acknowledging allegiance to Spain, demanded measures of autonomy, the decentralization of administration, and the right to vote on the Island budget. Gradually the cause of autonomy gained popularity under the leadership of men still prominent in the political life of the Island to-day. The party eventually became divided into two factions, one advocating complete independence from the political parties on the Peninsula, and the other favoring a compact with the dominant political party in Spain in return for local autonomy. A revolutionary "junta" was established in New York which laid plans for an invasion of the Island, with Santo Domingo as a base of operations. Revolution in Cuba was gradually bringing affairs there to a The Cuban insurgents were planning an expedition against Porto Rico, to be joined in that island by sympathizers with the Cuban cause. This situation and the necessity of insuring the loyalty of Porto Rico led to the decree of November 28, 1897, granting to Porto Rico local government in so far as internal affairs, the formation of budgets, treaties of commerce and fixing duties were concerned. The plan of autonomy contemplated a legislature to be elected by popular vote, with

an upper house appointed by the governor, and a cabinet composed of residents of the Island. On February 10, 1898, a cabinet, consisting of five heads of departments of the government, and a president, was appointed, and on March 27 of the same year elections were held; but before the members of the legislative bodies had time to act, or the new plan had been tried, events occurred which were to change the destinies of the island government.

The succession of events in Cuba immediately preceding and culminating in the declaration of war by the United States on Spain, in April, 1898, involved the other insular possessions of Spain in the changes which followed.

Admiral Cevera's fleet left Spain for West Indian waters, and a vigilant watch was maintained by American naval vessels for its appearance. Porto Rico was considered the probable destination, and on May 11, 1898, the scout-ship Yale was seen off the port of San Juan, followed next morning by the American fleet under command of Admiral Sampson. In the meantime the ancient fortifications of the city of San Juan, which had served it so well through many years of its early history, again took on the aspect of actual warfare. The garrison of Spanish soldiers, reinforced by hastily recruited local militia, manned the antiquated artillery of the forts and prepared for defense. Most of the inhabitants, in anticipation of the bombardment, abandoned the city. The American fleet opened fire early in the morning, and the Spanish troops returned it vigorously. The fire of the American fleet had been commenced, however, merely for the purpose of testing the fortifications and obtaining ranges and was soon discontinued. Relatively small damage was done to the fortifications and city by the bombardment. The lighthouse on Morro Castle was destroyed, the military barracks, and the Beneficencia facing it, damaged, a shot entered the church of San José, and the public market and a few other buildings were hit. After the firing ceased, the fleet, leaving a cruiser to blockade the port, sailed away, no attempt being made to enter the harbor. In the port were two small Spanish cruisers, the Isabel II and the Concha, and the gunboat Ponce de León, none of which left the bay during the bombardment. Later, however, the Spanish destroyer Terror, of Cervera's fleet, arrived from Martingue and entered the harbor. June 22 this vessel left the harbor to attack the American cruiser St. Paul, which was still patrolling the entrance to the

port. The movements of the two vessels were watched by hundreds of people from the heights of the city. They exchanged but one broadside, resulting in serious damage to the *Terror* and the death of some of her crew, whereupon she was towed back into the harbor by the *Isabel II*.

The fleet under Admiral Cervera having met its defeat on July 3 off Santiago, a portion of the American forces was sent to Porto Rico, and on July 25, 1898, General Miles landed troops at Guánica, on the southwest coast of the Island, where they met but slight opposition. These troops were followed by those of Generals Wilson and Brooke. The Spanish forces had not expected the American troops to make a landing on the south side of the Island, and therefore had concentrated the local forces at other places. The Americans advanced toward the north with no opposition except slight skirmishes near Hormigueros, Aibonito, and Coamo. On the 12th of August news of the armistice was received, hostilities were suspended and the blockade of the ports of the Island lifted. On August 16 the New Orleans entered the port of San Juan, and its commander made a formal call upon the Governor General.

As a result of the peace negotiations which followed Porto Rico came under the jurisdiction of the United States, and on October 18, 1898, formal possession of the Island was assumed and the American Flag raised over the fortifications, from which the emblem of Spain had flown for nearly four centuries.

A military government was at once established by General Brooke, who was succeeded in December, 1898, by General Henry. A postal system was organized, the Government lottery abolished, freedom of speech and the press restored, the use of stamped paper and certificates of residence discontinued, a police force, consisting of Porto Ricans under command of American officials, was organized, and strict sanitary measures adopted. Free public schools were opened, provision made for writ of habeas corpus and jury trials, the courts were reorganized, and imprisonment for political offenses, chains, solitary confinement and other similar methods of punishment were abolished. Pending the restoration of normal conditions, the foreclosure of mortgages was temporarily suspended. The Spanish currency in use was retired and replaced by American money. and other local officials were elected, and in 1899 a census taken, which showed a population of 953,243.

Unsettled conditions immediately resulting from the war

seriously affected local industries and commerce, and a material decrease in exports, with many hardships, followed as a natural sequence. The abnormal conditions were augmented by the results of a severe hurricane on August 8, 1899, which destroyed many coffee plantations and cattle. Many of the inhabitants of the interior suffered from lack of food. Aid speedily came from the United States, and the free distribution of food and building material in great quantities afforded temporary relief.

On April 12, 1900, the United States Congress passed what is known as the Organic Act, establishing a civil government in Porto Rico and providing temporary revenue for its maintenance until such time as elections could be held and a local system of revenue established. In accordance with this act the military government, under General George W. Davis, who had succeeded General Henry, came to an end, and the civil government was established, with Hon. Charles H. Allen as Governor. May 1, 1900. On June 28, the Executive Council, the Upper House of the Legislature, consisting of six Americans, who were also heads of Government departments, and five residents of Porto Rico, all appointed by the President of the United States, met and organized. A general election was held on November 6 of the same year, at which 35 Porto Rican's were chosen as members of the House of Delegates, the other branch of the These elective delegates met with the Executive Council in the first session of the Legislative Assembly on December 3, 1900, and continued in session until January 31, 1901, having passed 36 laws necessary for the complete establishment of civil government, and providing for a system of taxation and internal revenue.

On June 22, 1901, the Governor called an extraordinary session of the Legislature, to meet on July 4, and on that date a joint resolution was passed advising the President of the United States that a system of local taxation had been provided and placed in operation, and requesting that a presidental proclamation be issued announcing the existence of civil government in Porto Rico. This fact was duly proclaimed by President McKinley on July 25, 1901, the third anniversary of the first landing of American troops. In accordance with the provisions of the Organic Act, free trade with the United States followed the publication of this proclamation, and American merchandise entered Porto Rico and products of the Island were admitted into the United States without payment of customs duties.

Governor Allen's administration was followed on September 15, 1901, by that of Governor William H. Hunt, who remained in office until July 4, 1904, when he was succeeded by Hon. Beekman Winthrop. His successor in turn was Governor Regis H. Post, who took his oath of office on April 18, 1907, and, on November 6, 1909, the inauguration of the present Governor, Hon. George R. Colton, occurred.

The birth of the germ of progress in Porto Rico occurred nearly four hundred years ago, when the first Spanish colonists landed on its shores, and from that time the Kingdom of Spain, as in its other colonies, brought Porto Rico up from the original condition in which it was discovered to a state of modern civilization and placed it on the road to further development. process of evolution, like all others of moment, was fraught from the beginning with strife and danger, political complications, and other difficulties, all of which served to try out and strengthen the resulting institutions. With these institutions as a basis, however, its history during the last ten years has been one in which the principal lines of development have tended constantly toward industrial and commercial improvement and educational extension, rather than, as in any country passing through the first stages of its construction, a history in which warfare and political and other complications occupy the foreground.

A Coat of Arms was granted to the Island of
The Seal of
Porto Rico on November 8, 1511, by the Spanish
Crown, and that fact promulgated by a Royal
Decree of which the following is a translation:

Don Ferdinand, by the Grace of God, King of Aragon, etc., etc.:

Whereas, in behalf of you, the council, judiciary, mayors, esquires and other good men of the Island of San Juan, which is in the Indies of the Sea, Pedro Moreno, solicitor of said Island, having informed me that since the said Island was found, discovered, taken and ordered populated by myself and the Very Serene Queen Isabela, my dear and beloved wife—may she now be resting in the grace of the Lord—and that within it there was a population of Christians which was on the increase, and that up to the present time no Coat of Arms or device has been granted to said Island to be placed on their pennants, on their seals, or on any other places where they should be placed by cities and communities of this Kingdom, and requesting of me that I grant arms to said Island, to be placed on their pennants, seals and any other customary places;

And I, in view of the fact that said Island was found and taken by myself and by the said Queen Isabela, my dear and beloved wife—may she now be resting in the grace of the Lord—and as you have been the first settlers thereof, and in order that our Lord may be served, and that our Holy Catholic faith may be revered, and acknowledging the good and loyal services of these settlers of the said Island who have been subject to the greatest and most perilous work, and have suffered in the population of the said Island, in its conquest, and in bringing into our service and control the Indians thereof, and it being just that those who served with honesty and loyalty may be rewarded, and in order that said Island may be ennobled;

I deem it proper, and by these presents, grant and give to the said Island for its Coat of Arms, a green shield, round, bearing a silver lamb, resting upon a red book, bearing a flag with a cross and banner, as shown in the device of Saint John, and having for a border castles, lions, flags and crosses of Jerusalem, and having for a device an "F" and an "I" with its crowns and a yoke and arrows, and a motto round it as follows:

"Joannes est nomen ejus," which said arms I hereby grant to the said Island of Saint John, to be its acknowledged arms, that they may be carried and placed upon their pennants and shields, or wherever chosen or necessary, and in the form and manner in which they have been and are used by other cities, communities and places of this Kingdom of Castile, to which we have granted arms.

By this, my decree, I order the Prince Don Carlos, my beloved and dear grandson, the Infantes, Dukes, Prelates, Counts, Marquises, Esquires, Masters of Orders, Priors, Commissaries and Sub-Commissaries, Wardens of Castles and Strongholds and of Public Buildings, and those of the Council, Justices, Mayors, Constables of our Home and Court, and Chancellery, and all Town Councils, Assistant Mayors, and Junior Constables, and whomsoever, and of all the cities, communities, and places of our Kingdom and señoralities, that they shall comply with this, my Royal Decree, in all that it does contain, and the form and manner of it shall not be altered, nor shall you allow it to be altered, or consent to its being altered at any time or in any manner.

And whomsoever shall not comply with it in any way shall forfeit my good will and fifty thousand maraved is to my treasury for each violation of this order.

This decree, bearing the sign of King Ferdinand of Aragon, was dated November 8, 1511, and sealed and confirmed by the Bishop of Palencia.

Most of the constituent parts of this Coat of Arms, which constitutes the present seal of Porto Rico, are readily identified in the accompanying illustration and have been described by Señor Mario Brau Zuzuarregui, as follows:

First design.—The coat of Arms of the Catholic Kings made up of five quarters, constituting the Coat of Arms of the Royal House of Leon, a red lion on a field of silver, this shield ranking first because, having appeared on coins and stamps from time immemorial to symbolize royalty, is older than any of the others.

Second design.—Coat of Arms of the Royal House of Castile, a golden castle with three merlons and three towers, the middle

being the largest. This is the ancient Coat of Arms of Don Alfonso VII, the Emperor, handed down to his son, Don Sancho III, upon granting to him the Kingdom of Castile, and which from the time of Don Fernando III held equal rank with the Lion on the Royal Shield.

The third, fourth and fifth designs form component parts of the two flags which appear on either side of the seal.

Third design.—Coat of Arms of the Royal House of Aragon. This design consists of four gules, or red bars, on a golden field, known as the Bars of Aragon, which have been recognized as such since the time of Wifredo el Velloso as the Coat of Arms of Barcelona, and later of the Kingdoms of Aragon, Catalonia and Valencia. Its incorporation in the Royal Coat of Arms was the result of a marriage of the Catholic rulers.

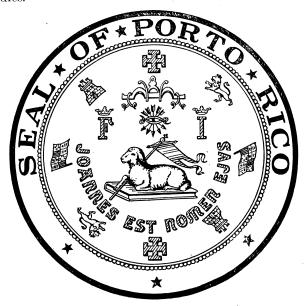
Fourth design.—The Coat of Arms of the Royal House of Sicily. This consists of the red Bars of Aragon upon a field of silver, upon which are spread two black eagles with golden crowns and red beaks and talons. This design first appeared on the Royal Coat of Arms at about the same time as that of the Royal House of Aragon, and belonged to Don Fernando V, heir of the monarchies of Aragon.

Fifth design.—Coat of Arms of the Kingdom of Granada; an open pomegranate showing red grains, and with green leaves upon a field of silver. This shield was added by the Catholic Kings as emblematic of the happy end of the conquest of Granada.

Sixth design.—This design consists of the Red Cross of Jerusalem, shaded, which was designed to be worn on the breast by the crusaders by Pontiff Urbane II in 1096, at the Council of Clermont, upon the organization of the military expeditions against the Saracens for the conquest of Jerusalem and to check the progress of the followers of Islam. Spain being invaded by the Saracens, she was relieved from taking part in the Holy Crusade, but her campaigns against the Moors in Spanish territory were considered as of the same nature as those of the Crusade of Palestine. The conquest of Granada led to the placing of the cross of Jerusalem in the heraldic bearings of the Catholic Kings.

The use of the arrows in this Coat of Arms has been attributed by some to their use by the Indians found in Porto Rico, but it is generally believed by students of heraldry that they were employed in this shield for the reason that the arrow was a universal prehistoric arm and has been held to represent strength and power. The yoke, significant of union, symbolizes the marriage of Ferdinand V of Aragon and Isabela I of Castile, whose initials, F. and I., superimposed by crowns, appear below on either side of the token of strength and power, the marriage of these two rulers having united their respective sovereignties. The Lamb of St. John, and the Latin inscription, Joannes es nomen ejus, is symbolic of the fact that the Island of Porto Rico, at the time the Coat of Arms was granted, was known as "San Juan," the name of its patron saint.

The authority above mentioned, in defending the authenticity of the recognized Coat of Arms of Porto Rico, against the arguments of those who have maintained that round shields are unusual in ancient heraldry, calls attention to the round shield of the City of Bilbao, authorized by a concession granted to Don Diego de Haro, and confirmed by Don Fernando IV on the 15th of June, 1300; and the shield of Santa Cruz de Tenerife, granted by Charles IV on the 28th of August, 1803, described in a work on Spanish arms published by the Royal Academy of History. He also refers to the fact that the Royal Decree of 1511 states that the design is to be used on seals and pennants and that the Coat of Arms in the form at present accepted appears on many of the ancient documents in the Archives of the Indies.



Various lists of the early Governors of Porto

Governors of Rico have been published, but even in those apparently authentic there is some confusion as to names and dates. The following list, from the discovery of the Island to the year 1555, is taken from the "Historia, Geografica, Civil y Natural de la Isla de San Juan Bautista de Puerto-Rico," by Fray Iñigo Abbad y Lasierra, with notes and additions by José Julián de Acosta y Calbo, the first edition of which appeared in 1788. The remainder is taken from the "Report on the Census of Porto Rico," 1899, published by the War Department of the United States Government:

Juan Ponce de León, explorer and colonizer of the Island, in 1508; Acting Governor in 1509. (Afterwards the famous discoverer of the State of Florida.)

Juan Cerón, Miguel Díaz, and Diego de Morales, appointed by Admiral Diego Columbus (son of Christopher Columbus and Governor of the West Indies), at the beginning of the year 1510.

Juan Ponce de León, Governor in 1510.

Juan Cerón, Miguel Díaz, and Diego de Morales, reinstated by the Council and the King in 1511.

Commander Moscoso and Cristóbal de Mendoza, 1512 and 1513.

Sancho Velázquez, 1514 to 1519.

Antonio de la Gama (son-in-law of Ponce de León), 1519 to 1521.

Pedro Moreno, 1521 to 1524.

Lucas Vázquez de Ayllón, appointed by the Crown, in 1524. Pedro Moreno, 1524 to 1528.

Antonio de la Gama, 1528 to 1529.

Francisco Manuel de Olando (or Lando, or d'Ovando), 1530 to 1536.

Vasco de Tiedra, 1536.

Governed by ordinary municipal mayors, 1537 to 1544.

Gerónimo Lebrón, appointed by the Crown, 1544.

· Iñigo López Cervantes de Loaysa, 1545 to 1546.

Antonio de la Vega, 1546.

Licentiate Caraza, 1547.

Governed by municipal mayors, 1548 to 1550.

Dr. Luis Vallejo, 1550 to 1555.

Licentiate Esteves, 1555.

Licentiate Caraza, 1555 to 1561.

Antonio de la Llama Vallejo (who married Leonora Ponce,

daughter of Ponce de León), governed until 1564. In this year the appointment of civil officials as Governors was discontinued and

Francisco Bahamonde Lugo, a cavalry captain in Flanders, was appointed. He was obliged in person to lead an expedition against the invasion of savages, receiving an arrow in a muscle, which endangered his life. His government ended in 1569 and he left for Spain. At the beginning of 1570 he was succeeded by

Francisco de Solís, a native of Salamanca, appointed for four years at an annual salary of 775,000 maravedís. He was succeeded in 1575 by

Francisco de Obando, who continued in office until 1580, being followed by

Juan de Céspedes, who died the same year. The next Governor, who arrived in the Island in 1581, was

Juan Melgarejo, a native of Sevilla, whose duty it was to prepare a geographic description of the country. He transferred the government in 1583 to

Diego Meléndez, mentioned by Abbad, and who governed the Island for eleven years, from 1583 to 1594.

Pedro Suárez, colonel, governed provisionally in 1593 and 1595.

Alonso Mercado, captain, in 1599.

Sancho Ochoa de Castro, in 1602.

Gabriel de Rojas, in 1603.

Felipe Beaumont y Navarra, in 1614.

Juan de Vargas, in 1620.

Juan de Haro, in 1625.

Enrique Henriquez, in 1630.

Iñigo de la Mota, in 1635.

Agustín de Silva, in 1656.

Maestre de Campo Juan Pérez de Guzmán, in 1661.

Maestre de Campo Gerónimo de Valasco, in 1664.

Maestre de Campo Gaspar de Arteaga, in 1670. Died on March 7, 1674.

Maj. Diego de Robladillo, in 1674 (temporary).

Capt. Baltasar Figueroa, in 1674 (temporary).

Maestre de Campo Alonso Campo, in 1675.

Maestre de Campo Juan Robles, in 1678.

Maestre de Campo Gaspar de Andono, in 1683.

Maestre de Campo Gasper de Arredondo, 1690 to 1695.

Maj. Tomás Franco, to 1698.

Maj. Antonio Robles, to 1699 (temporary).

Maestre de Campo Gaspar de Arredondo, in 1699.

Maestre de Campo Gabriel Gutiérrez de Rivas, in 1700

Maj. Diego Vallarán, in 1703 (temporary).

Capt. Francisco Sánchez, in 1703 (temporary).

Capt. Pedro de Arroyo, to 1705.

Maestre de Campo Juan Morla (temporary).

Maj. Francisco Granados, to 1708.

Col. Juan Rivera, to 1713.

José Carreño, in 1716 (temporary).

Maj. Alonso Bertodano, in 1716.

Maj. Francisco Granadas, to 1720.

Captain of Cavalry José Mendizabal, to 1724.

Lieut. Col. Matías Abadía, to 1731.

Maj. Domingo Nanglares, to 1743.

Col. Juan Colomo, in 1743.

Col. Agustín Pareja, to 1751.

Lieut. Col. Matías Bravo, to 1755.

Mateo de Guazo.

Felipe Ramírez.

Col. Marcos de Vergara, 1766.

Lieut. Col. José Tentor (temporary).

Col. Miguel de Muesas, to 1775.

Brig. Gen. José Dufresne, to 1783.

Brig. Gen. Juan Daban, to 1789.

Brig. Gen. Miguel Ustariz, to 1792.

Brig. Gen. Francisco Torralbo, to 1795.

Camp Marshal Ramón de Castro, to 1804.

Camp Marshal Toribio de Montes, to 1809.

Camp Marshal Salvador Meléndez, to 1820.

Brig. Gen. Juan Vasco y Pascual, in 1820. Brig. Gen. Gonzalo Arostegui, to 1822.

Col. José Navarro, in 1822 (temporary).

Lieut. Gen. Miguel de la Torre, Count of Torrepando, to 1837.

Camp Marshal Francisco Moreda, in 1837.

Camp Marshal Miguel López Baños, to 1840.

Lieut. Gen. Santiago Méndez Vigo, to 1844.

Lieut. Gen. the Count of Mirasol, to 1847.

Camp Marshal Juan Prim, Count of Reus, to 1848.

Lieut. Gen. Juan de la Pezuela, to 1851.

Camp Marshal the Marquis of Spain, to 1852 (temporary).

Lieut. Gen. Fernando de Norzagaray, to 1855.

Lieut. Gen. Andrés García Gamba, in 1855.

Lieut. Gen. José Lemery, to 1857.

Lieut. Gen. Fernando Cotoner, to 1860.

Lieut. Gen. Rafael Echague, to 1862.

Brig. Gen. Rafael Izquierdo, in 1862 (temporary).

Lieut. Gen. Félix María de Messina, to 1865.

Lieut. Gen. José María Marchesi, in 1867.

Lieut. Gen. Julián Juan Pavia, in 1869.

José Laureano Sanz, lieutenant-general, in 1870.

Gabriel Baldrich, lieutenant-general, in 1872.

Ramón Gómez Pulido, lieutenant-general, in 1872.

Simón de la Torre, lieutenant-general, in 1872.

J. Martínez Plower, lieutenant-general, in 1873.

Rafael Primo de Rivera, lieutenant-general, in 1873.

José Laureano Sanz, lieutenant-general, in 1875.

Segundo de la Portilla, lieutenant-general, in 1877.

Manuel de la Serna, lieutenant-general, in 1878.

Eulogio Despujols, lieutenant-general, in 1881.

Segundo de la Portilla, lieutenant-general, in 1884.

Miguel de la Vega Inclan, lieutenant-general, in 1884.

Ramón Fajardo, lieutenant-general, in 1884.

Luis Daban, lieutenant-general, in 1885.

Romualdo Palacio, lieutenant-general, in 1887.

Juan Contreras (temporary), camp marshal, in 1887.

Pedro Ruíz Dana, lieutenant-general, in 1888.

José Lasso Pérez, lieutenant-general, in 1892.

Antonio Daban, lieutenant-general, in 1893.

José Gamir, lieutenant-general, in 1895.

Manuel Delgado Zulueta (temporary), general of division, to February 15, 1896.

Sabas Marín, lieutenant-general, to January 4, 1898.

Ricardo Ortega, general of division, January 4, 1898, to January 11, 1898 (temporary).

Andrés González Muñoz, lieutenant-general, January 11, 1898. (Died the same day.)

Ricardo Ortega, general of division, January 12, 1898 (temporary), to February 2, 1898.

Manuel Macías y Casado, lieutenant-general, February 2, 1898, to October 16, 1898.

Ricardo Ortega, general of division (temporary), from October 16, 1898, to the 18th of the same month and year, on which day

the general government of the Island was turned over to Maj. Gen. John R. Brooke.

Maj. Gen. John R. Brooke, Military Governor, October 18, 1898, to December 6, 1898.

Maj. Gen. Guy V. Henry, Military Governor, December 6, 1898, to May 9, 1899.

Brig. Gen. George W. Davis, Military Governor, May 9, 1899, to May 1, 1900.

Charles H. Allen, Civil Governor, May 1, 1900, to September 15, 1902.

William H. Hunt, Civil Governor, September 15, 1902, to July 4, 1904.

Beekman Winthrop, Civil Governor, July 4, 1904, to April 18, 1907.

Regis H. Post, Civil Governor, April 18, 1907, to November 6, 1909.

George R. Colton, Civil Governor, was inaugurated November 6, 1909.

CHAPTER IV.

GOVERNMENT.

Jurisdiction, Basic Law—Legislature, Chief Executive—Departments and Branches—Insular Government Finances.

HE jurisdiction of the Government of Porto Rico embraces the Island of that name and adjacent islands lying east of the seventy-fourth meridian, ceded to the United States by Spain.

The Organic Act, officially entitled "An act temporarily to provide revenues and a civil government for Porto Rico, and for other purposes," approved April 12, 1900, generally known as the "Foraker Act," provides for the existing system of government in Porto Rico. The formal title of this act of Congress, as will be noted, implies that it is a provisional law to enable a form of government to be maintained until such time as experience shall have indicated to Congress what the permanent status or character of the Island Government should This act provides, among other things, that the inhabitants of Porto Rico, who were Spanish subjects on April 11, 1899, with the exception of such persons as preferred to retain their allegiance to Spain, within the terms of the Treaty of Paris between the United States and Spain, constitute a body politic, known as "The People of Porto Rico," which includes also citizens of the United States resident in Porto Rico.

The act approved April 12, 1900, was amended by a joint resolution of May 1, 1900, and by the acts approved March 2, 1901, and July 15, 1909; the latter known as the "Olmsted Act," making provision for the allotment of funds to cover the expense of government in the event of the failure of the local Legislature to enact the necessary budgets; and providing for the centralization of matters pertaining to the Government of Porto Rico in one department at Washington. Prior to the enactment of this amendment the business transacted by the several branches of the Insular Government with the authorities at Washington was carried on direct with the corresponding departments of the Federal Government. Under the authority of this amendment the President of the United States issued an Executive Order, dated July 15, 1909, directing that all reports required by law to be made by the Governor or members of the Executive Council of Porto Rico to any official in the United States, should be made to the War Department, and all business pertaining to the Government of Porto Rico was thereby centralized under that department in the Bureau of Insular Affairs.

This Organic Act, although, as indicated by its title, a provisional measure, having now been in force since April 12, 1900, has been outgrown by the advance and changes in local conditions. Its revision has been for some time the subject of consideration, the result of which was the introduction of a bill in Congress by Hon. M. E. Olmsted, which, after exhaustive hearings and various amendments, was passed by the House of Representatives on June 15, 1910, and is now pending action by the Senate. The bill in its present form provides in brief for the granting of collective American citizenship to the people of Porto Rico; a partial, but progressively elective Senate; the subdivision of the teritorial jurisdiction of the Island Government into representative and senatorial districts; bases the right of franchise upon educational or contributory grounds; and establishes a coordinate and cohesive form of Insular Government, in which the legislative and executive functions will be separated, and also a uniform health service throughout the Island.

The legislative power conferred by the Organic Act upon The People of Porto Rico is vested in Legislature. the Legislative Assembly, consisting of the Executive Council and the House of Delegates, corresponding, respectively, to a Senate and a House of Representatives. Executive Council consists of 11 members appointed by the President of the United States, by and with the advice and consent of the United States Senate, for a term of four years, at least 5 of whom must be "native inhabitants of Porto Rico." One of these 5 members, and the other 6, are also the heads of the 7 executive departments. The Secretary of Porto Rico, Attorney General, Auditor, Treasurer, Commissioner of the Interior and Commissioner of Education are in charge of the corresponding departments created in accordance with the terms of the Organic Act. The seventh is at the head of the Department of Health, Charities, and Correction, which was created by an act of the Legislative Assembly of 1904. heads of the departments authorized by the act of Congress receive a salary of \$4,000 each per annum, except the Treasurer, whose annual compensation is \$5,000, with no additional compensation as members of the Executive Council. The salaries of the other 5, as members of the Executive Council, are \$3,000 each, and the head of the Department of Health, Charities, and Correction receives, in addition to his compensation as a member of the Executive Council, \$1,000 as the director of that department.

There are 35 members in the House of Delegates, who are elected every two years by the voters of the Island, each of the 7 electoral districts in which the Island is divided being entitled to 5 representatives. The Organic Act authorizes compensation at the rate of \$5 per day while the Legislature is in session, and traveling expenses for each delegate.

The Executive Council remains in session throughout the year, convening every Thursday afternoon at 3 o'clock, and is subject to call in special session at any time when necessary. It confirms appointments made by the Governor and attends to such legislative duties as are presented from time to time. The proceedings of the upper House are conducted in English, an interpreter being present at all times to translate debates into Spanish when required by members who do not understand English. The proceedings of the lower House are conducted in the Spanish language.

Both houses of the Legislative Assembly convene annually on the second Monday in January each year and remain in session for sixty days. The Legislature has the power to enact laws, not in conflict with the Organic Act, on all matters except the granting of franchises, privileges and concessions, which power is vested by the Organic Act in the Executive Council alone. Bills may originate in either House, but before becoming laws must be approved by a majority of both Houses, and by the Governor. In the event of veto by the Governor an act becomes a law if passed by a two-thirds vote of both Houses. Laws enacted by the Legislative Assembly must be submitted within sixty days to Congress, by which the right to disapprove any act is reserved.

The act of Congress approved April 12, 1900, creates the office of Governor, with compensation at the rate of \$8,000 per annum, and outlines his powers and duties as follows:

He shall be appointed by the President, by and with the advice and consent of the Senate; he shall hold his office for a term of four years

and until his successor is chosen and qualified unless sooner removed by the President; he shall reside in Porto Rico during his official incumbency and shall maintain his office at the seat of Government; he may grant pardons and reprieves, and remit fines and forfeitures for offenses against the laws of Porto Rico, and respites for offenses against the laws of the United States, until the decision of the Tresident can be ascertained; he shall commission all officers that he may be authorized to appoint, and may veto any legislation enacted, as hereinafter provided; he shall be the Commander-in-Chief of the militia, and shall at all times faithfully execute the laws, and he shall in that behalf have all the powers of Governors of the Territories of the United States that are not locally inapplicable; and he shall annually, and at such other times as he may be required, make official report of the transactions of the Government in Porto Rico, through the Secretary of State, to the President of the United States: Provided, That the President may, in his discretion, delegate and assign to him such executive duties and functions as may in pursuance with law be so delegated and assigned.

In addition to these general powers and duties, others have been assigned to him from time to time by the Legislative Assembly. All judges and prosecuting attorneys of the district courts, justices of the peace, and other insular officials, are appointed by him, and he also fills vacancies created by resignation, removal or other cause, in certain municipal offices. The Insular Police Force of the Island is also under his control and supervision.

The law provides no cabinet in connection with the Governor's office, but he is assisted to a great extent in the consideration and disposition of matters requiring his attention, by the heads of the various executive departments, and especially by the Secretary of Porto Rico; certain functions assigned to the latter by law bringing the Secretary's Department into closer official relation with the office of the Chief Executive than any other department of the Government.

Secretary of Porto Rico, in addition to acting as the Governor's executive officer, performs the duties usually devolving upon the secretary of state of a State or Territory, such, among many others, as recording and preserving public documents, promulgating proclamations and orders of the Governor and acts of the Legislative Assembly, receiving and filing articles of incorporation, annual reports of domestic and foreign corporations, and maintaining a register of consuls and other official representatives of foreign nations. He is charged by law with the compilation and publication of the Official Gazette, and has

centrel and supervision over the Bureau of Supplies, Printing, and Transportation, which, as indicated by its name, furnishes the supplies required for use in the transaction of official business, does all the Government printing, and furnishes the transportation required by officials and employes in the performance of their duties. He is ex oficio a member of the Executive Council. During the absence of the Governor from the Island, or in the event of a vacancy in the office, he is required by the Organic Act to attend to the duties and exercise the powers of the Governor.

The office of the Secretary of Porto Rico acts in many respects as a clearing house for Government business, or a general bureau of information, through which much correspondence, and many inquiries, from persons unfamiliar with the organization of the local Government, and hence at a loss as to whom they should address, find the way to the proper officials.

The Secretary of Porto Rico is charged with the duty of printing and distributing the laws of the local Legislature; the distribution of decisions of the Supreme Court of Porto Rico, annual reports, and other official publications; the promulgation of executive orders; and the maintenance of a record of all official acts of the Governor, executive appointments and pardons. He receives applications for and prepares United States passports. By means of the Official Gazette, issued every two months, he keeps the public informed of the action of the Executive Council upon applications for franchises, for declarations of public utility, miscellaneous resolutions, committee and other reports, and of the acts of the Legislative Assembly; appointments; publishes executive orders, proclamations and circular letters; announces the registration of foreign and domestic corporations; the registration of patents and trade-marks; publishes current decisions of the Supreme Court; official statements and rulings of the Treasurer and Auditor; opinions of the Attorney General; circulars and current reports of the Department of Education and the Board of Trustees of the University of Porto Rico: circulars and reports of the Department of the Interior: data from the Division of Harbors and Docks regarding the tonnage of vessels; statements from the Bureau of Public Works and the Division of Public Buildings regarding the status of contracts; lists of licenses for automobiles and other motor vehicles, issued by the Bureau of Property and Accounts of the Interior Department; lists from the Bureau of Insular Telegraph, of telegraph and telephone stations; reports as to the progress of the work of the Irrigation Service; vital, health and sanitary, and penal statistics of the Department of Health, Charities, and Correction; announcements and rulings of the Boards of Pharmacy, Medical, and Dental Examiners; resolutions of the Insular Police Commission; Civil Service changes, rosters of the Insular and Federal Government officials; and commercial, immigration, and meteorological statistics.

In accordance with an executive order issued December 27, 1909, supplies and equipment for use of all branches of the Government are purchased through a central supply bureau known as the Bureau of Supplies, Printing, and Transportation. bureau maintains a full stock of stationery and office supplies, and other staple articles required for current use in Government offices. When purchases cannot be made from local dealers with advantage, this bureau places its orders with dealers in the United States, utilizing for that purpose the facilities afforded by the office maintained in New York by the Bureau of Insular Affairs, and known as the office of the Insular Purchasing The Insular Purchasing Agent, upon receipt of orders, attends to all the details involved in calling for bids, passing upon prices, and selecting the goods, and arranges for their ship-The bills covering such purchases are promptly settled by the Disbursing Officer of the Bureau of Insular Affairs, from Porto Rico funds advanced to him from time to time for that purpose, thus enabling the Purchasing Agent, in obtaining quotations on supplies, to utilize the advantage of being able to offer cash payment in the United States instead of settlement on invoices sent to Porto Rico.

The printing plant, maintained and operated by the Bureau of Supplies, Printing, and Transportation, is one of the best equipped and most modern plants on the Island for printing, ruling, and binding all job work, blank forms, account books, and publications required in the transaction of Government business. The transportation division of this bureau is equipped with sufficient automobiles to furnish all necessary transportation to Government officials and employes, and there is maintained in connection therewith an adequate machine shop in which the cars are kept in repair.

No funds are appropriated by the Legislature for the Bureau of Supplies, Printing, and Transportation, the entire cost of administration and operation being covered by the profit accruing from the work performed.

Department of Justice embraces the office

Department of Justice.

The Department of Justice embraces the office of the Attorney General, the Supreme, district and municipal courts, the justices of the peace, the registrars of property, and the notaries. The Attorney General is the head of the department and has admin-

Attorney General is the head of the department and has administrative jurisdiction over the courts and all officials connected with the department.

The Department of Justice, organized during the military government of Porto Rico, was abolished by the Foraker law, and in place of the judicial board in charge of the former department the office of Attorney General was created. The powers and duties of this latter officer correspond very nearly to the work of the old judicial board, and the divisions or branches of Government under his jurisdiction are so nearly the same as those under the former organization, that the name "Department of Justice," has continued in common use. The work of the department will be considered under its various branches:

Office of the
Attorney General has all the powers
and is charged with all the duties of an
attorney of a Territory of the United States.
His work consists in furnishing opinions to

the Governor, Legislature, and heads of the other departments relative to the interpretation, construction and execution of the laws of the Island. The prosecuting attorneys of the Supreme and district courts, who are under the supervision of the Attorney General, present all indictments or informations for violations of the criminal laws, but all cases against insular officers for official misconduct must be submitted to the Attorney General before they are presented to the courts for prosecution.

The bonds of the court secretaries and marshals, and their deputies, and all bonds required by the Executive Council in franchise matters are subject to the approval of the Attorney General as to form and execution.

All pardon applications are referred by the Governor to the Attorney General for examination and recommendation. Every year a large number of such cases are thus reported on.

As a member of the Franchise and Judiciary Committees of the Executive Council the Attorney General has numerous legislative duties to perform in addition to the work of his own office. The payment of the salaries of the court officials and all employes of the department, including witnesses and jurors, is made through the office of the Attorney General, except in the case of the justices of the peace, who are paid by the respective municipalities.

The reporting of the decisions of the Supreme Court is done under the direction of the Attorney General.

The Supreme Court is the court of last resort in Porto Rico. It is composed of five judges appointed by the President of the United States, and possesses general appellate jurisdiction. Writs of error and appeals from the final decisions of this court, in certain cases, may be taken to the Supreme Court of the United States. The judges have power to grant injunctions and writs of habeas corpus and mandamus. The sessions of the court are held at San Juan. The Supreme Court may also issue writs of prohibition and certiorari.

The Chief Justice receives a salary of \$5,000 and the Associate Justices, \$4,500 each per annum. The court is provided with a marshal, a secretary, and the necessary clerical force.

The District Courts. These courts have general original jurisdiction in civil and criminal matters. They may also hear cases appealed to them from the municipal courts and the justices of the peace. Appeals lie to the Supreme Court from the final decisions of the district courts.

Under the present organization of the judiciary these courts are composed of only one judge each, instead of three, as during the Spanish régime, and the Island is divided into seven judicial districts instead of five. The judges of these courts are appointed by the Governor for a term of four years. They are authorized to issue writs of injunction, habeas corpus, mandamus, prohibition and certiorari, and they have the general powers usually conferred upon judges of like courts. All felony cases must be tried originally in the district courts.

Each district has a *fiscal*, or prosecuting attorney, whose duty it is to present all indictments or informations and prosecute them before the court. He also represents the Government in any civil actions to which it may be a party. The *fiscals* are appointed by the Governor for a term of four years, and receive the same salary as the district judges, viz., \$3,500 and \$3,750 per annum, according to the district. The salaries of all the

officials of these courts are paid by the Insular Government, and the fees, fines and costs collected by them are covered into the Insular Treasury.

The municipal courts have jurisdiction in all criminal cases in which the offense charged Municipal Courts. is less than a felony, and in felony cases the municipal judge may act as a committing magistrate. courts may try suits in ejectment when the annual rental of the property involved does not exceed \$1,000, and in other civil cases they have jurisdiction where the amount in controversy does not exceed \$500. From the decisions of these courts appeals may be taken to the district courts. There are 31 municipal courts at present in the Island, the territorial jurisdiction of each court being fixed by statute, and including from one to four municipalities. The judges, secretaries and marshals of these courts are elected by popular vote, each for the term of four years.

In San Juan, Ponce, Mayagüez, Arecibo, and Bayamón the municipal judge receives a salary of \$1,500, and he must be over 25 years of age and a practicing lawyer before the insular courts. In Aguadilla, Guayama, Humacao, and three or four other important towns, the municipal judges receive a salary of \$1,200 each, and they must be practicing lawyers over 21 years of age. In all the other municipal courts the judges receive \$1,000 each.

The expenses of these courts are paid by the Insular Government, and all fines, costs and fees collected by them are covered into the Insular Treasury, except fines for violations of municipal ordinances or regulations of the Board of Health, which are turned over to the municipalities.

There are 57 justices of the peace in this Justices of the Peace.

Island. Their jurisdiction is limited to violations of municipal ordinances and to other criminal matters in which the punishment imposed may not exceed a fine of \$15 or imprisonment for 30 days. Their functions correspond to those of police judges in the United States. In the absence of a municipal judge, a justice of the peace may act as a committing magistrate.

The justices are appointed by the Governor and receive salaries paid by the municipalities. Appeals lie to the district courts from the decisions of the justices of the peace.

There are 9 registrars of property in Porto Rico. Appointments to these positions are made Registrars of by the Governor after a competitive examination Property. held by a commission of five members designated by the Supreme Court. The position of registrar, under the present system, is a very important one, and the law requires that a registrar shall be over 25 years of age and a practicing lawyer with more than five years' experience before the courts of Porto Rico. Each registrar is required to give a bond for the faithful discharge of the duties of his office. Their salaries are paid by the Insular Government and run from \$1,800 to \$3,000 per year, according to the importance of the district. All fees earned by them for recording documents, issuing certificates, etc., are paid in internal-revenue stamps.

Under the Spanish law, which is still in force, registrars of property are not required to record every document presented to them for that purpose. Being responsible for the legal effect of their act, they are allowed a period of 10 days in which to examine a document for the purpose of determining whether it contains the requisites that entitle it to registration. Should the registrar decide in the negative, the person desiring the registration of the document may appeal to the Supreme Court and obtain the decision of that tribunal upon the question of whether or not the document is entitled to registration.

Notaries. by giving bond and complying with the provisions of the notarial laws. The old Spanish mortgage law, which is the real property law, is still in force in Porto Rico, with a few changes. Conveyances of real property, mortgages and all similar documents can be drawn only by a notary. The original of every instrument drawn by a notary is required by law to be retained by him, and only a certified copy may be issued to his client. All of these originals are numbered consecutively by the notary and form what is known as his "protocol."

There is a regular schedule of fees which the notaries are allowed to charge for their professional services. Under the old Spanish law the notaries were limited to certain territorial districts. The office or business of a notary was considered a valuable asset, and was bought and sold like a seat on a stock exchange. Under the new procedure each notary has jurisdiction throughout the entire Island.

The American Government found in Porto Rico a system of laws very similar to that prevailing in Laws and The change of sovereignty repealed, by Procedure. implication, many parts of that system because they were incompatible with American ideas and institutions. Military Governor, by general orders, also made a number of material changes, and the Legislative Assembly from time to time has modified the Spanish system by enacting laws in harmony with those in the United States. These changes, coming gradually, as they have, while tending ultimately to place the entire body of Porto Rican laws on an American basis, have not as yet reached that point. The former Spanish system, whatever its defects may have seemed to the American lawyer, was a completed system, each part of which harmonized and fitted with the other parts. The changes that have been made have broken into that system, and in some instances have created confusion and uncertainty as to just what laws are in force and applicable in certain cases.

Of the former Spanish laws prevailing at the time of the change of sovereignty, there yet remain in Porto Rico, with slight modifications, those relating to wills and inheritances, civil status, contracts and obligations, land titles and liens, the law of waters, of mines, of commerce, of railroads, and also a number of royal orders and decrees. Some of the general orders of the American military government are also still in force. But there is now a new political code, a penal code, a code of criminal procedure, a code of civil procedure, and a civil code. The latter is substantially the old Spanish Civil Code, though it has been modified to some extent. Besides these laws, the Legislature has enacted a number of statutes which are of great value to the people, such as authorizing the writ of habeas corpus, injunctions, mandamus, certiorari, prescribing rules of evidence, school and road laws, etc. But a general revision and codification, so as to blend and harmonize the local substantive laws with the political and administrative laws of the United States, would be of the greatest benefit to the Island.

The act of the Legislature establishing the jury system in Porto Rico went into effect April 1, 1901, but it was several months before a trial by jury was asked for. Under this act a person accused of crime can demand a jury trial when the penalty is not less than two years' imprisonment. During the first year and a half after the inauguration of the jury system

not a single trial by jury was held in the San Juan district and only 24 were held in all the other districts of the Island. Since that time, however, jury trials have gradually become more popular, and now every district has a regular calendar of jury cases at each term of court.

In introducing jury trials in Porto Rico it was but natural that some difficulty should be encountered at first, since neither the people nor the courts were familiar with the method of procedure. But a very marked improvement has been made in the practical operation of the system since its inauguration, and there is every reason to believe that the jury system will prove as successful in Porto Rico as in any other country.

Treasury

Department.

To the performance of the duty imposed upon the Treasurer of Porto Rico in his dual capacity, which compares in other parts of the United States to assessor or tax commissioner and receiver of taxes, there is a Bureau of Property Taxes, from which is required two distinct services: First, that of the general valuation and assessment of property, and, second, the collection and covering into the Treasury of the taxes imposed in accordance with such assessment.

The first service is performed by a corps of 15 trained assessors, one of which is especially detailed to gather data on corporations, and the others are located as permanently as possible in assessment districts, into 10 of which the Island is divided, corresponding to the divisions of the recorders of property.

These assessors are familiar with the properties and conditions in their respective districts, and their permanent connection with the Treasury Department gives a uniformity and continuity to their work that could not be obtained in any other way.

They make returns of all property, real and personal, owned or held in possession on January 15 of each year, which returns are carefully scrutinized by a competent force of men in the central office and so systematically checked as to reduce to a minimum the possibility of duplicate or excessive taxation and prevent the evasion of taxes justly due.

Valuations in dispute between taxpayers and assessors are passed upon by a Board of Review and Equalization, composed of the Treasurer of Porto Rico, the Secretary of Porto Rico, the Commissioner of the Interior, and two citizens of Porto Rico

versed in matters pertaining to the value of property in Porto Rico, who are appointed by the Governor. This board frequently sits as an informal tax commission to fix the valuation of important properties, and even their valuation, as all others, are subject to subsequent appeals to the Board of Review and Equalization on demand by the taxpayer.

For the collection of property taxes the Island is divided into 69 collection districts, with a collector in charge of each. Combination tax bills and receipts are made out in the Treasury Department, at San Juan, from the assessment rolls as finally passed upon by the Board of Review and Equalization. receipts are attached to stubs and are bound in volumes of convenient size. These volumes of receipts are sent to the collectors and deputy collectors, and each is charged upon the books kept for that purpose in the Bureau of Accounts, with the total amounts of receipts placed in his hands for collection. moneys received by collectors on account of the payment of taxes or the sale of revenue stamps must be deposited at frequent intervals in one of the depositories of insular funds. Upon making such deposits they receive receipts from the depositories, which they duly forward to the Treasury Department, and thereupon receive credit on the books for the amount so deposited Collectors must keep books of account, in the form prescribed by the Treasurer and Auditor of Porto Rico, and make due return to these officers of all work performed by Compliance with these regulations is secured through the work of two traveling examiners attached to the Bureau of Accounts of the Treasury Department, whose duty it is, as ordered by the Treasurer of Porto Rico, to travel from office to office of the collectors and examine their books and cash on hand for the purpose of determining whether all receipts and stamps that have been placed in their hands are duly accounted Collectors are bonded to The People of Porto Rico for the faithful accounting for all moneys coming into their hands, and their work is efficiently checked by the Bureau of Property Taxes.

Taxes are payable twice a year, upon July 1 and January 1, of each fiscal year, and become delinquent if not paid within sixty days thereafter. The Treasurer of Porto Rico is authorized to enforce the payment of delinquent taxes by the attachment and sale of the property of such delinquent taxpayer. Such proceedings are handled through the collectors. Each step

in the procedure employed is provided for by the use of a carefully prepared series of forms, so that the risk of error is reduced to a minimum. The compensation of these officials varies from \$660 to \$2,000 per annum, according to the importance of their districts. Collectors are fully bonded. They are appointed by the Treasurer, without term, holding their offices during good behavior. They thus have permanent positions as long as they perform their duties properly. Those doing good work also may look forward to promotion, as the policy in filling vacancies to positions carrying the higher salaries is to promote those collectors receiving a lower remuneration whose services have been most meritorious. These positions, it may be of interest to note, have invariably been filled by native Porto Ricans.

Corporations are, in general, taxed upon the same basis as individuals; that is, upon the actual value of property owned by them in the Island.

The basis of the system of taxation on general property is direct and "in rem" on the real, but the lack of an efficient cadaster, and the consequent difficulty of determining the location of rural real property, has resulted in the growth of a system of distraining personal property for all taxes due and only proceeding on real property when no personal property exists.

This system, vigorously handled, has given excellent practical results and has reduced the amount of taxes in arrears to a minimum quantity.

Before leaving this subject of property taxes it should be noted that the municipalities of the Island likewise have the power of imposing a general property tax of nine-tenths of 1 per cent upon property within their districts. Of the moneys received on account of this tax the Treasurer of Porto Rico must retain and pay over to the treasurer of each local school board 25 per cent and to the treasurer of each municipality to be covered into the road fund, 8 per cent, the municipalities thus receiving for their own immediate needs 67 per cent. The municipalities also have the power to levy a special school tax of not to exceed one-tenth of 1 per cent. Those municipalities which have contracted bonded indebtedness must also impose a further tax sufficient to produce the sum required by them to meet the interest and sinking-fund charges on account of such loans. These taxes are levied on property as assessed by the Insular

Government, and the Treasury Department has in all cases assumed the burden of making out the tax receipts and collecting of insular taxes.

A great economy is thus effected in avoiding the employment of two sets of collection officials, and the convenience of the tax-payer is conserved by his having to deal with only one tax office. All receipts on account of such municipal taxes are treated as special trust funds, and are paid over monthly to the municipalities to which they belong. The cost of such collection is entirely borne by the Insular Government.

No special description is needed of the machinery employed in the enforcement of the payment of inheritance taxes. such payment the Treasury Department depends almost wholly upon the courts of the Island, as the law makes it compulsory upon such tribunals to see that the taxes due are paid before any distribution of such estates is authorized. The collection of taxes due from insurance companies is likewise a simple matter. These companies are required to make regular statements of the business done by them and to transmit to the Treasurer of Porto Rico the sums due as shown by such statements. regards customs receipts, the Treasury Department is relieved from all responsibility. All customs dues are collected by the Federal Collector of Customs, who turns over the money thus received after retaining the sum necessary to defray the cost of collection. Miscellaneous receipts are likewise covered into the Treasury without any special effort on the part of the department other than that of keeping a proper account to see that all payments legally due are made.

The Bureau of Accounts, as its name implies, is the accounting office of the Treasury Department. The work is divided into two classes of accounts, those of the Treasurer of Porto Rico for all receipts and expenditures of the Insular Government and those of the collectors of internal revenue for property and excise taxes. In addition to the above, this bureau has been making some bank examinations the past three years, but is somewhat handicapped by the lack of a regular bank examiner.

Excise taxes are imposed in Porto Rico in pursuance of an act of the Legislative Assembly of Porto Rico approved March 9, 1905, amending and superseding the original revenue law of the First Legislative Assembly of Porto Rico under date of January 31, 1901. This law has since been amended, on March 14, 1907, and on March 9, 1911. The changes enacted on March

.9, 1911, to become effective July 1, 1911, were very important and are summarized below. It should be noted that excise taxes are levied in Porto Rico upon the following-named articles, whether produced in the Island or brought or imported thereinto, according to the rates herein specified: Distilled spirits, \$0.26 per liter or fraction thereof; beer, ale, porter and other similar fermented liquors and wines, \$0.06 per liter or fraction thereof; champagne, \$0.27 per liter or fraction thereof; cigars, \$0.20 per hundred; cigarettes, \$1.10 per thousand; playing cards, \$0.03 per pack; perfumery, proprietary and patent medicines, cosmetics, toilet powders, bay rum and similar aromatic compound preparations of alcohol, 5 per cent ad valorem; arms, ammunition, 40 per cent ad valorem, and matches, \$0.20 per gress of An excise tax is also levied upon original instruments and their copies executed before notaries public and upon registration of such instruments or copies by registrars. By virtue of the amendment of the Insular revenue law, approved March 9, 1911, to take effect July 1, 1911, the tax on distilled spirits has been fixed at \$0.28 per liter or fraction thereof. The tax on cigarettes weighing more than 3 pounds per thousand is increased to \$2.20 per thousand. Patent and proprietary medicinal preparations, also those which are put up in style or manner similar to that of patent or proprietary, if containing alcohol, are also subject to the payment of tax on the amount of alcohol they contain by volume in addition to the payment of tax, at the rate of 5 per cent on the ad valorem basis. All bottles or other packages containing medicinal preparations, or articles, are required to be labeled, showing specifically the alcoholic content, by volume, of such preparations. The Treasurer may now, under the new law, abate, under certain condi-. tions, the amount of taxes due on spirits lost from metal tanks at distilleries by leakage or evaporation; may authorize the establishment of two factories in the same building producing taxable articles dissimilar in character, and may suspend, for a period of six months, under certain regulations, taxes due on goods intended for exhibition at a public fair or exhibition. In addition to the following license taxes, which are payable quarterly, in advance, at the rates herein given, to wit: Distiller. \$25: rectifier. \$25; manufacturer of stills, or parts of stills. \$5: cigar manufacturer, \$1; cigarette manufacturer, \$100; wholesale dealer in distilled spirits, \$25; wholesale dealer in beers or wines, \$12; wholesale dealer in arms or ammunition,

\$12; wholesale dealer in cigars or cigarettes, \$12; and wholesale dealer in perfumery, \$12, the new law imposed a license tax upon brewers, \$25; upon manfacturers of taxable medicines, \$2.50; manufacturers of cigars, who pack their product in boxes, \$12; manufacturers of cigarettes, \$100 on each machine used in the production of cigarettes; and upon pool or billiard tables, \$2 a table, payable quarterly. Retail licenses for the sale of liquors, cigars or cigarettes in Porto Rico are divided into three classes, and the following quarterly sums are payable therefor: First-class retail liquor license, \$7: second-class retail liquor license, \$4; third-class retail liquor license, \$2.50. First-class retail cigars or cigarettes license, \$5; second-class retail cigars or cigarettes license, \$2.50; third-class retail cigars or cigarettes license, \$1.50. Traffic in perfumery, at retail, is also subject to a quarterly license tax of \$1, and the traffic in arms or ammunition, at retail, to a license tax of \$12 per quar-Payment of all excise taxes is made to the Collectors of Internal Revenue, who also receive property-tax payments, by the purchase, affixture and proper cancellation of internal revenue stamps either to articles, as in the case of cigars, or to certain documents, as in the case of other taxable articles.

For the administration of the scheme of excise taxes there is in existence the organization of an elaborate system whereby the Treasury Department may keep record of and supervise the production, importation, exportation and sale of all articles subject to these taxes. All manufacturers, distillers or importers of these articles, also manufacturers and dealers in denatured alcohol, are required to keep books of accounts in the manner and form prescribed by the Treasury Department, setting forth an exact statement of the quantity and kind of articles subject to the payment of excise taxes which are produced, imported, exported or sold; the name of purchaser, with the date of each sale or shipment, amount of taxes paid thereon, etc. Taxes upon the production or importation of articles subject to excise dues are paid at the time these goods are imported, in the case of importation, or at the time they leave the factory, in case they are manufactured on the Island.

To enforce compliance with the law and prevent fraud the Treasury Department has a force of 23 internal revenue agents, of whom 22 devote their attention exclusively to the rigid supervision and inspection of establishments manufacturing and handling goods subject to the payment of taxes. One man, des-

ignated as internal revenue agent at large, has general supervision of excise-tax affairs of the entire Island, and especially to see that revenue agents perform their duties in an efficient manner and enforce the law in accordance with the provisions thereof.

These agents are assigned to certain districts for the proper conduct of excise tax affairs and enforcement of the revenue law It is their duty to inspect all wherein they are responsible. establishments at which articles subject to tax are manufactured and sold, to examine and take stock of goods on hand in factories, in order to determine whether any such goods have left the establishment without the proper payment of tax or have not been registered in the book provided for that purpose, and generally to see that all requirements of the law are strictly complied with. They must also visit all places of business to see that these are not handling goods without the proper licenses at retail or wholesale or upon which the excise taxes are not paid. Agents must also see that license fees are properly paid by manufacturers and dealers in taxable articles. They must finally act as secret-service men, inspect importations and shipments of articles being made within their districts, observe that payment of taxes due is effected thereon at the proper time, inspect shipments of taxable articles for export from Porto Rico, supervise the manufacture and subsequent disposition by sale of denatured alcohol; also that of bay rum, alcoholado and other similar aromatic compound preparations of alcohol for export, likewise for consumption under regulations allowing drawback on alcohol used in the manufacture thereof, examine documents in the offices of public notaries, investigate claims submitted for refund of taxes improperly in excess or unduly paid, execute bonds given the Treasurer by manufacturers of taxable articles, make arrests and institute administrative or prosecution proceedings where the law has been violated. The internal-revenue stamps by which payment of the excise taxes is made, are kept by the Treasurer of Porto Rico in his immediate possession in a vault especially constructed for that purpose. These stamps are issued upon requisition to the collectors of taxes for sale by them to the taxpayers.

In the Bureau of Internal Revenue is concentrated the performance of all work relating in any way to the administration of the excise system of the Island. In it one division has immediate supervision over the enforcement of excise-tax laws relating to the manufacture and sale in Porto Rico of taxable articles, while another has direct charge and supervision of importations and exportations of like articles. The office force consists of six men, who, with the field force of 23, form the personnel of the bureau, constantly directed by its chief and controlled by the Treasurer.

In addition to this duty, the service under the act entitled "An act to protect Porto Rican cigars from fraudulent misrepresentation by providing for adequate expert inspection, and the issue of stamps of guarantee covering the origin of tobacco used in the manufacture of such cigars intended for exportation," which has now been fixed by the recent Legislature to become operative January 1, 1913, has also been assigned under the control of the Bureau of Internal Revenue. The object of this law is comprehensively stated in its title. It provides for the employment of three tobacco experts, whose duty it shall be to register the different brands of cigars manufactured in Porto Rico: to examine tobacco from which cigars will be manufactured for exportation, likewise to examine the cigars, to inspect the cigar factories to see that the condition of factories and operatives therein employed, as regards sanitation and cleanliness, are satisfactory; that guarantee stamps are not used falsely, and in general to observe that the law is carried out and complied with.

The Bureau of Municipal Finance has as its essential duties the supervision of municipal finances and the investigation and study of municipal questions. The act concerning municipalities approved March 1, 1902, contained the provision that all municipal treasurers and comptrollers should keep books of account, deposit moneys, and make reports according to a uniform system to be prescribed by the Treasurer of Porto Rico. accordance with the revised Municipal Law, approved March 8, 1906, the various regulations which have been promulgated by the Treasurer in the exercise of this authority were submitted to the Executive Council for its amendment and approval and published as the "Regulations Governing Municipal Account ing." These regulations, taken in conjunction with several sections of the Municipal Law, constitute a complete municipal financial system, control over which is exercised by the Treas-Enforcement of the regulations, together urer of Porto Rico. with an intimate knowledge of municipal affairs which is indispensable to the central Government, is secured through office

and field examiners attached to the bureau, who, on the one hand, examine periodical reports rendered by the municipal officials, and, on the other, inspect their books, vouchers and other records. The field examiner has also, by virtue of a special authority conferred by the Governor, the power to investigate fully the administration and financial operations of any municipality, and in the exercise of this authority he reports whether taxes are properly levied and collected, whether expenditures are honestly and economically made, and whether, in general, the affairs of a municipality are efficiently administered. Among the general questions requiring the constant attention of the bureau are those related to the borrowing operations of the municipalities, since, according to the laws of Porto Rico, no loan may be negotiated by any local government except with the approval of the Executive Council.

The Treasury Department, through the Bureau of the Paymaster, is charged with the "disbursement of the public moneys or funds of The People of Porto Rico," under provisions of an act approved March 14, 1907. The bureau provided for by this act is the successor of the former bureau of disbursements, the essential difference being that payments are now made by the Paymaster of Porto Rico in accordance with the schedule of audited claims, which go to make up the total of a warrant drawn by the Auditor and countersigned by the Governor. The Treasurer, upon receipt of this warrant, issues a draft for the total amount to the Paymaster, who in turn draws checks to the order of each of the payees named. All disbursements are made by check, some 100,000 checks being issued during a year, approximating between five and six million dollars.

The Auditing provisions of section 23 of the Act of Congress approved April 12, 1900, and subsequent acts of the Porto Rican Legislature, to keep an accurate accounts of all receipts and expenditures of the Insular Government. He issues and signs all warrants for payments made from the Insular Treasury for services rendered under authority of the law, transmitting the same to the Governor of Porto Rico for counter-signature. The documents used for the payment of claims or accounts are designated as "settlement warrants." Those issued on requisitions for advances of money to special disbursing officers and other authorized agents are known as "accountable warrants."

He prescribes the form and manner in which all public accounts and vouchers subject to his audit shall be prepared and submitted, and prescribes all forms for vouchers, bonds, requisitions, estimates, etc., and causes the same to be printed and supplied to the other departments of the Government.

In the matter of payment to be made from the proper appropriations made by the Legislative Assembly, his authority is final, although on disallowance of claims, an appeal can be taken by the aggrieved parties to the Governor of Porto Rico, if made within ninety days, and the opinion of the Governor is conclusive. He submits monthly statements of the financial condition of the Insular Treasury of Porto Rico to the War Department, through the Governor, from which the annual reports to the Congress of the United States are made.

For administration purposes the Auditor's Department is divided into four divisions, as follows:

Division of Bookkeeping and Warrants, where are kept the books of accounts of the Insular Government. The receipts of the Government are shown by Treasurer's receipts issued in duplicate, indicating the heads under which they belong, whether insular revenues, trust fund or miscellaneous receipts. These are all countersigned by the Auditor, the originals being retained in the Auditor's office to be used as a check in the monthly settlement of the Treasurer's account of receipts and expenditures, which account, together with the accounts of the Paymaster, are settled in this division, credits being allowed only on the returned paid drafts of the Treasurer and paid checks of the Paymaster.

All blank check books used by the Paymaster are issued by this division after they have been consecutively numbered and stamped with letters "A" "B" distinguishing the series used for salaries from those used for contingent expenses.

The following books are kept in this division:

(1) Auditor's General Ledger of Receipts and Expenditures, (2) Register of Requisitions and Accountable Warrants, (3) Register of Claims and Settlement Warrants, (4) Register of Disbursing Accounts, (5) Register of Audited Accounts, (6) Register of Transfer Warrants, (7) Register of Surplus Fund Warrants, (8) Register of Covering Warrants, (9) Register of Appropriation Warrants, (10) Register of Accounts of Construction of School Buildings, (11) Register of Loans to Municipalities, (12) Register of Loans to School Boards, (13) Register of Personal Accounts of Outstanding Liabilities, (14) Register of Treasurer and Bank Accounts, (15) Register of Accounts of Special Disbursing Officers, (16) Register

of Personal Accounts of Receiving Officers and Agents, (17) Register of Internal-Revenue Stamp Sales by Collectors of Internal Revenue, (18) Register of Tobacco Stamps, (19) Insular Revenues Appropriation Ledger, (20) Trust-Fund Appropriation Ledger, (21) Statistical Register of Audited Insular and Municipal Receipts, (22) Statistical Register of Audited Insular and Municipal Miscellaneous Receipts, (23) Record of Employes and Leaves of Absence.

All warrants are prepared in this division. The chief of the division, with the chief examiner, drafts all the blank forms issued by the department.

The Division of Disbursements and Claims audits all claims against the Insular Government, except those in connection with the distribution of the taxes to the different municipalities. Complete rosters of all the employes are kept, against which the monthly pay rolls for salaries are checked. A card system of periodical payments is also kept, from which all payments are checked. All vouchers are checked by the voucher clerks to see if charged to the proper appropriations and if in accordance with the subvouchers, and that correct computations have been made. All contracts with the Insular Government are kept in this division, the payments thereunder with retained percentages being held until final payment is made, when proper record thereof is made on books prepared for that purpose.

Books are maintained showing payments for fees from foreign and domestic corporations, as well as earnings of insurance companies, who pay semiannually 3 per cent tax on business done in Porto Rico. Records are kept of all leases upon which rent is paid.

All payments on vouchers and pay rolls are abstracted, salaries appearing on one kind and contingent expenses on another. These abstracts, certified by the chief of the division, go to the Division of Bookkeeping, where a warrant is prepared. The amount of this warrant, after being signed by the Auditor and Governor, goes to the Treasurer for payment. The following accounts are also settled in this division:

Treasurer of Porto Rico, Repayments; Special Disbursing Officer, Department of Interior, Disbursements; Insular Revenues and Trust-Fund Accounts; Chief Division Property and Accounts, Department of the Interior; Chief Division of Property and Accounts, Department of Education; Chief Bureau of Supplies, Printing, and Transportation; Receiving Clerk, Bureau of Insular Telegraph; Captains of the Ports of San Juan, Ponce and Mayagüez; Superintendent Girls' Charity School; Secretary and Treasurer University of Porto Rico; Assistant Director of Health,

Charities and Correction (two accounts); President Insular School for Training Nurses; Secretary Board of Dental Examiners; Secretary Board of Pharmacy; Secretary Board of Medical Examiners; Director of Porto Rican Experimental Station; Sanitation Service of Porto Rico; Insular Fair Board.

The Division of Internal Revenue audits and settles the accounts of the collectors of internal revenue throughout the Island, as submitted to the Treasurer of Porto Rico, covering taxes collected by them on real and personal property; also for taxes on corporation property. After these several accounts are audited a distribution based on the following proportions is made: Ten per cent of the gross amount is retained by the Insular Government and 90 per cent distributed to the municipalities upon the following basis: 25 per cent school fund, 8 per cent road fund, except San Juan, which is 5 per cent; and 67 per cent to the general fund, except San Juan, which gets 70 per cent. The municipal school tax and bond-redemption tax are collected and distributed in the same manner, but upon a different basis, according to the percentage collected in the various towns. These amounts are abstracted, certified as correct by the chief of the division, warrants made from abstracts, and the amounts of the warrants paid by the Treasurer to the Paymaster of Porto Rico, who sends checks to the municipalities in accordance with the abstracts. Where loans have been made to municipalities and school boards the proper deductions are made and warrants drawn in favor of the Treasurer of Porto Rico, to be credited by him to the different loans. This division has charge of the counting of internal-revenue stamps and the issuance of the same to the Treasurer of Porto Rico, who furnishes them to the different collectors in the Island on requisition. It also has charge of the payment of taxes improperly collected. These payments are made direct from two fundsinsular revenue and trust fund—by settlement warrants. also pays on settlement warrants, on requisition from the municipalities and school boards, the several amounts that have been loaned by the Executive Council.

The Division of Examiners, lately increased to four in number, including the chief, is composed of a specially equipped force of employees, all of whom were chosen from leading accounting houses in New York City after graduation from colleges or other institutions devoted to this special work. This force is constantly engaged in the examination of the accounts

of all classes of Government officials, as indicated by the Auditor, and upon request of the heads of departments also makes special examinations. As of July 1, the Division of Receipts has been added to this department, with purpose of keeping detail of all accounts covering revenues from various sources, rents of property and leases, with name of occupant, rate, expiration, etc., accrual of interest on deposits, special license fees, personal accounts with clerks and marshals of courts, accounts rendered by the Bureau of Supplies, Printing, and Transportation, and other sources of miscellaneous revenues.

The work of the property clerk of the Auditor's Office has been inaugurated within the past year, and embraces the maintenance of complete inventories based upon the names of articles and value of all property in the possession of the Insular Government. The Auditor prescribes the manner in which property records shall be kept by the various accountable officers, and requires from them at stated periods inventories of property on hand, and statements of property acquired and disposed of by them. There have been added to the duties of property clerk the accounts of expendable materials and supplies purchased for use of the various departments in operative and constructive work in Porto Rico.

An inventory of all supplies and materials was taken as of July 1, to which will be charged by the Auditor the monthly purchases. The departments using will report monthly to the Auditor the expenditures and to what features of the work in hand the value is chargeable.

This department superintends all works of a public nature, and has charge of all insular Department of the roads, public buildings, docks, grounds, and Interior. lands, except those reserved for use by the various departments of the Federal Government; it maintains the telegraph and long-distance telephone systems of the Island: issues automobile and chauffeur licenses; registers brands of commercial fertilizers, and is, by law, given administrative control of the extensive irrigation work now being installed over the southern third of the Island. The department is organized under some eight subdivisions, namely, Office of the Commissioner, Division of Property and Accounts, Bureau of Public Works, Division of Public Buildings, Division of Public Lands, Bureau of Insular Telegraph, Division of Harbors and Docks, and the Porto Rico Irrigation Service.

The Office of the Commissioner (together with the Division of Property and Accounts) directs the work of the department, records and accounts for expenditures, property, etc.

The Bureau of Public Works has direct charge of the construction and maintenance of all insular roads and bridges, culverts, harbor bulkheads, water fronts, etc.; reports upon technical questions involved in applications for franchises and permits, such as matters relating to railways, aqueducts, bridges, piers, etc.; and has supervisory control of the construction of municipal roads, as well as other municipal public works.

At the time of the American occupation there was a road system of 284.1 kilometers, and the present total of 1,010.4 kilometers shows 726.3 built by the present Government. These roads rank with the best macadamized roads in the United States. Owing to the mountainous formation of the Island, the cost per mile is somewhat greater than the average cost of roads in the United States.

The Legislature enacted during March, 1910, two road laws and provided \$595,000 for construction. The law also created a commission to be known as the Road Commission, composed of the Governor of Porto Rico, the Speaker of the House of Delegates, a Member of the House of Delegates, to be named by the Speaker, and the Commissioner of the Interior. This commission determines the roads to be constructed under abovementioned appropriations.

The Division of Public Buildings is charged with the maintenance and necessary repair of all public buildings, with the construction of the many school houses throughout the Island, and of such other public buildings as may from time to time be provided for by law.

The Division of Public Lands has charge of all matters pertaining to public lands of the Island. Some 80,000 acres were acquired from Spain at the time of the American occupation. In addition, some 2,644 acres have since fallen into possession of the Insular Government because of nonpayment of taxes on same.

The Bureau of Insular Telegraph operates the insular telegraph and telephone system throughout the Island, bringing into communication some 61 municipalities, and connects with the private telephone systems of the northern and southern sections of the Island.

The Division of Harbors and Docks has charge of all the shipping of the Island, the collection of harbor fees, pilotage and general supervision of all harbors and water fronts; designates berths for all vessels while in the harbors, and looks after the general shipping interests of the public.

The Porto Rico Irrigation Service has been placed under the administrative control of the Department of the Interior, under the direct supervision of a chief engineer, who is responsible for construction and all technical matters pertaining to the service.

At the time of the American occupation of Porto Rico, in October, 1898, there was in existence a system of schools comprising 380 public schools for boys and 148 public schools for girls, making a total of 528 public schools, with an enrollment of 25,644 and an actual attendance of 18,243. These schools were maintained by the local communities, were housed in buildings temporarily rented and which were used as living quarters for the teacher and his family, were ungraded, poorly equipped, and manned by teachers inadequately and irregularly paid. These teachers held permanent licenses, and hence were subject to no test as to proficiency.

From the inception of American Government in the Island particular attention has been given to the matter of extending the school system. The need for this is shown by the fact that according to the census of 1899 only 15 per cent of the population over 10 years of age could read and write. The progress made in the the extension of the school system during the past ten years is reflected in the following figures:

	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
No. of schools Average	833	1,026	1.113	1,104	1,135	1,243	1,509	1,992	2,450	2,838
daily at- tendance	29,457	34,457	41,811	45,201	45,417	47,277	57,117	74,732	84.258	102,612

These figures include all the schools in the Island under the direction of the Department of Education.

The organization which has brought about such a degree of educational development is largely centralized in the Department of Education, one of the seven coordinate executive departments of the Insular Government. At the head of the Department of Education is the Commissioner of Education, appointed by the President of the United States, and to whom is given,

by the Organic Act of the Island, power to "superintend public instruction throughout Porto Rico." By the same act all disbursements for educational purposes must be approved by him. In each of the 68 municipalities of the Island are school boards in charge of the local school interests, but the formulation of the course of study (which is uniform for the Island), the certification of teachers, the examination of pupils to determine their progress, and other general powers, reside in the Department of Education.

The efficiency of the instruction through the grades is entrusted to the Assistant Commissioner, who is also chief of the Division of Supervision. Directly under him are three general superintendents, who spend most of their time in the field, and 40 supervising principals, who are in charge of the districts consisting of one or more municipalities.

The salaries of all teachers, amounting to over \$720,000, are paid direct from the Insular Treasury. Of the 1,743 teachers on the pay roll of the department, 815 are males and 228 are females. All hold certificates issued by the department, based either upon examination or upon graduation from some institution recognized by law. In addition to the salaries paid by the Insular Government, the school boards pay a small monthly allowance in lieu of house rent to the teachers under their respective jurisdiction. The average monthly wage for the entire number of teachers, including allowance for house rent, is \$50.80 for the school year of nine months. The maximum and minimum salaries of teachers below high-school grade are \$100 and \$33 per school month.

The school system comprises kindergarten, rural, graded, high, night and special schools. During the school year 1910-1911, 145,525 different children were enrolled in the public schools, which means that of the entire population of Porto Rico 1 in every 7 went to school—a larger proportion than for any other people of the Western Hemisphere, save those of the United States and Canada. They were distributed as follows:

Kindergarten	249
Graded	46,173
Night	15, 138
Rural	82, 280
High	1, 144
Special	

Kindergartens are in the experimental stage, being maintained in the cities of San Juan and Ponce only.

The rural schools are by far the most numerous and perhaps the most important factor in the general uplift of the people. With few exceptions they are located in the country districts wherever needed, and are often reached by long, hard climbs up the mountain trails. At the present time there are 1,648 of these schools, including double enrollments. Although the number equipped with modern furniture and appliances is increasing year by year, still not a few remind one of the primitive New England school with its tables and backless benches. Since 1900, 219 one-room and 15 two-room rural school buildings have been constructed by the Department of Education and the school boards. Some of these are substantial cement structures; others the simplest of structures, thatched roofed and primitive in every way. The remainder of the rural schools are maintained in rented buildings, but in no instance, however, is the same structure used for school and residence purposes.

The course of study for rural schools covers the first four grades and articulates with the graded-school course at this point. In the majority of rural schools the first three grades only are maintained, though the number in which fourth, fifth and sixth grade work is offered is steadily on the increase. More than half the rural teachers are men and all are native Porto Ricans. They are doing work worthy of the greatest praise in extending elementary instruction to the remotest corners of the Island

Graded schools are maintained in each of the 68 towns and cities of the Island, as well as in a considerable number of the more populous barrios. The course of study in these schools comprises work through the eighth grade. Students who complete this course receive the common-school diploma upon passing the examination given by the department. During the school year 1910-1911, 967 candidates passed this examination. The course compares very favorably with that of the better school systems in the States and requires, in addition, the study of Spanish throughout each year. In all but about 5 per cent of the graded schools instruction in the ordinary branches is given in English.

In 52 municipalities, graded-school buildings of from 4 to 22 rooms have been constructed; in all, 89 such buildings, with

a total of more than 450 rooms. Three classes of teachers give instruction in the graded schools, viz: Teachers of English, English graded and Spanish graded teachers. The first named are Americans, nearly all graduates of colleges or normal schools in the States. The law requires that at least one teacher of English be assigned to each municipality of the Island. some the number is considerably greater, making a total of about 150. The English graded teachers are Porto Ricans who, through the study of the English language either in the United States or in the public schools of Porto Rico or in the course in English maintained by the department and taught by the teachers of English, have so perfected themselves in the language as to pass a special examination in English given by the department. They are then authorized to give instruction in all the branches of the curriculum through the medium of English. The Spanish graded teachers are in the process of securing the English graded license, but have not as yet been able to pass the rigid examination demanded by the department for that grade. Many of them, however, are teaching in English.

At the cities of San Juan, Ponce, and Mayagüez are maintained first-class high schools, each with a four-year course, and sending their graduates to the University of Porto Rico and to any college or university in the United States without difficulty in entrance.

In addition to these fully equipped high schools, partial high-school courses are offered in 21 other municipalities of the Island. In these various schools of a secondary grade are more than 1,000 students at the present time. In each of the three high schools mentioned is maintained a commercial course in addition to the regular classical and scientific courses.

The school spirit in these institutions is good; athletic enthusiasm is intense; literary and debating societies are maintained; and everything is found which goes to make a first-class high school.

For the education of those who are unable to attend the day schools, 262 night schools are in operation, with an enrollment of more than 15,000. The great majority of persons attending these schools are adults. Instruction is given in reading, writing, and arithmetic, the rudiments of geography and history. In a few night schools all instruction is given in

English, and in many others English is taught as a special subject.

In six districts special teachers of agriculture furnish theoretical and practical instruction in this branch to all the children enrolled in the graded schools from the fourth grade on, and superintend the work of the rural teachers in the subject. Gardens are maintained in connection with the work. It is hoped that in the near future this work can be extended through the appointment of a larger number of special teachers.

Extended courses in agriculture are offered at Río Piedras by the University of Porto Rico, and this institution is now in a position to supply the demand for teachers of agriculture.

In the high schools of the island and in the university courses in manual training and in domestic science are maintained. Since the beginning of this school year courses in sewing have been established in almost all towns of the Island, and in many instruction in cooking and in military science is being offered.

Within three years no less than 239 public school libraries have been established, containing more than 40,000 volumes. The great majority of these are simple, but strong, boxes (in reality, condemned army kits) in circulation among the rural schools, each containing a selection of from 50 to 100 books.

Fully equipped public-school playgrounds are being established over the Island, and at the present time they are to be found in 52 municipalities, with more than \$20,000 invested in their equipment. Thousands upon thousands of the Porto Rican youth of both sexes are making use of these playgrounds and are developing a sturdiness of physique hitherto unknown to school children in the Tropics. Every form of athletic interest has been fostered by the playground activity. At the interscholastic athletic meet held in March, 1911, there were more than 200 contestants coming from many different towns, and the records made would have been creditable to boys of equal age in any part of the world.

In many towns are to be found school bands. At the time of the annual athletic meet a contest of school bands is held and a banner given to the one making the best showing.

In the University of Porto Rico the public-school system of the Island culminates. This institution is not directly under the Department of Education, though the Commissioner of Education is *ex officio* the president of the board of trustees and its chancellor. The university was founded in 1903 and is vested by law with all the rights and privileges usually inhering in such institutions. The material equipment of the university consists of, roughly, 200 acres of land, more than 100 of which are located at Río Piedras, and the remainder at Mayagüez. The Río Piedras campus contains 9 structures, used by the colleges of Liberal Arts and Agriculture and by the Normal Department. The last named was the first to be established by the university and is now a prosperous normal school, with nearly 300 students enrolled and as many more in the practice school.

The university represents the logical point of academic contact between the Spanish and English speaking peoples of the Western Hemisphere. Its curriculum offers more extended courses in Spanish language and literature than does any institution in the United States, and more extended courses in English than are to be found in Spanish America. Persons coming from either the north or south will find so many persons speaking their own language that the usual shock of a plunge into a distinctly foreign environment is not felt.

With the large number of people in the Spanish-speaking countries who feel the commercial necessity of the English language and the perhaps still larger number of youths in the United States who foresee a business or a professional future in Spanish America, the University of Porto Rico bids fair to become a veritable Pan-American University.

Department of Labor, Charities, and Correction. In 1904, by act of the Legislature of Porto Rico, the Bureaus of Insular Health, of Insular Charities, and of Insular Prisons were consolidated into one department, known as the Department of Health, Charities, and

Correction, and by the terms of the same law a member of the Executive Council not charged with other administrative duties was placed at the head of the department.

The Department of Health, Charities, and Correction continued as organized under the act of 1904, until July 1, 1911, when by virture of an act passed by the Legislative Assembly of Porto Rico in March, 1911, supervision and control over all health and sanitary matter in the Island passed to a new organization, known as the Service of Sanitation. The last Legislature changed the name of this department to Labor, Charities, and Correction, and created therein a Bureau of Labor. The Ser-

vice of Sanitation, in addition to the health and sanitary duties previously performed by the Department of Health, Charities, and Correction throughout the Island, took control as well of health and sanitary work in all the municipalities. The Director of Sanitation is at the head of this service and attends to the enforcement of the sanitary law and regulations. There is also in connection with this service an Insular Board of Sanitation, which acts as an advisory and legislative body.

There remain under the supervision and control of the Department of Labor, Charities, and Correction all the public charitable and correctional institutions of the Island. At the head of the department is the Director of Labor, Charities, and Correction, and under him an Assistant Director, who also acts as Supervisor of Charities, and the Supervisor of Prisons.

The Supervisor of Charities has charge of all charitable institutions of the Island. They are the Blind Asylum, at Ponce, with accommodations for about 100 patients; the Insular Insane Asylum, at San Juan, with accommodations for 350 patients; the Girls' Charity School, the insular orphan asylum for girls, in Santurce, with accommodations for about 175 inmates; and the Boys' Charity School, the insular orphan asylum for boys, in Santurce, with accommodations for about 275 inmates.

The Supervisor of Prisons controls the Insular Penitentiary, situated in San Juan; the Reform School for Juvenile Delinquents, situated in Mayagüez; and the district jails of San Juan, Ponce, Mayagüez, Humacao, Arecibo, Guayama, Aguadilla, and Vieques.

The entire work of policing the Island of Porto Rico is performed by the Insular The Insular Police. Police, a body organized in accordance with the Insular Police Law, approved March 12, 1908, and acting under direct control of the central Government and the Insular Police Commission. All administrative matters in connection with this force are centralized at police headquarters in San Juan. The organization consists of a Chief of Police, directly responsible to the Governor, an Assistant Chief of Police, two inspectors, an adjutant of police, and a Chief of the Bureau of The outside work is performed under the supervision of this headquarters organization by 66 district chiefs, 15 sergeants, 40 corporals, and 600 guardsmen, 120 of whom are mounted.

This small police force, although called upon to preserve order

throughout an Island with a population of over a million, has performed its work so effectively and satisfactorily, not only to the authorities, but to the people as well, that it has gained a reputation for efficiency that is not excelled by any other similar The discretion and intelligence exercised in the organization. presentation of charges, as well as the cooperation afforded by court officials is apparent from the fact that of charges presented against 55,662 persons arrested during the year 1909, 74 per cent resulted in convictions. The authors of all of the 61 murders which occurred during the same year, the 31 attempts to murder, and the 211 burglaries committed in the Island, were arrested, and as a rule not later than twenty-four hours after the commission of the crime. It has been asserted that there is seldom a crime committed in Porto Rico the author of which is not sooner or later discovered and brought before the courts by the police.

Civil Service Commission. Legislative Assembly, approved March 14, 1907, the Civil Service extends throughout all branches of the Government. This act provides for a Civil Service Commission composed of three members, one of whom acts as chairman of the commission, chief examiner, and secretary. This official directs the work of the commission, which meets every Monday afternoon to consider the work of the preceding week, a record of its actions being kept in the form of minutes.

Examinations of candidates for appointment are held in February of each year and special examinations throughout the year as the needs of the service require, the general examinations being held in San Juan, Ponce, Mayagüez, Guayama, Arecibo, Aguadilla, Humacao, and Vieques, and the special examinations in San Juan only. The commission is represented in each town where examinations are held by a special com-Papers for all examinations are prepared in the head office at San Juan and, after the examinations are held, are returned to that office for rating. All examinations are open and competitive. From the registers of eligibles obtained from these examinations, candidates are certified for appointment to vacancies whenever they occur in the service. The Civil Service Commission encounters little difficulty in filling most of the vacancies which occur, but there is usually a dearth of suitable candidates for positions requiring technical knowledge.

is due primarily to the fact that there are as yet but few technical schools of any kind in the Island, and Porto Ricans who have attended and graduated from technical schools in other places, upon their return to this Island, easily find more lucrative employment outside of the Government service. Nevertheless, the Civil Service Commission frequently holds examinations for specially qualified employees, including chemists, pathologists and engineers, and is able to fill a few of the positions of this class, it being necessary to resort at times to the civil service lists of the Federal Government or other sources to fill the remaining technical positions. The number of vacancies in the classified service filled by promotion average 50 per cent. January 1, 1908, the date on which the Civil Service Act went into effect, there were under the Insular Government 3,810 positions, of which 1,052 were classified. The appropriation bill for 1910-11 provided for approximately 3,700 positions, of which about 1,000 are classified. There has been no change in the extension of the classification, the difference in figures being due to changes in organization. The Civil Service Commission keeps a record of all leaves of absence and maintains an official roster of employees.

The aim of the commission, in addition to performing the routine work of examination and filling vacancies and keeping the official roster as required by law, is to continue a campaign of education along the lines of civil service reform, to stimulate an interest in the Government civil service as affording a career in which industrious and capable young men may find ample opportunity to apply their abilities, and, so far as possible, to so mold public opinion that it will insist that selections for appointment, not only in the insular, but in the municipal service, shall be made on merit alone, and that appointees shall be retained only so long as their good conduct and efficiency warrant their retention.

The Insular Library of Porto Rico, forInsular Library of
Porto Rico.

The Insular Library of Porto Rico, formerly known as the "Free Library of San
Juan," was established by an act of the Legislative Assembly of Porto Rico, approved
March 12, 1903, for the purpose of furnishing a depository for
public documents, archives and records of the Legislative Assembly and departments of the Insular Government, where they
could be consulted by members of the assembly and heads of
departments.

The library is pleasantly located in three large, well-lighted rooms situated in the building known as the "Deputación Provincial," in the center of the city of San Juan, and is easily accessible to those desiring to avail themselves of its privileges. It is patronized equally by Porto Ricans and Americans living in the city and in the near-by towns, and also by foreigners, attracted by the large assortment of magazines, periodicals and newspapers, in English and in Spanish, to which the library subscribes. The reading tables are always well filled.

The number of visitors during the week is estimated at 1,000. There is also a circulating library, with an enrollment at the present time of 4,000 members, and from 300 to 400 books are given out and received daily.

Many of the books on biography, history, travel, science, etc., now in the library are a legacy from the old Spanish libraries existing in San Juan before the American occupation, although their number has been greatly augmented by purchases and by donations of works in the Spanish, English, and French languages.

The library has an annual appropriation of \$3,800 dollars for the payment of the salaries of a librarian, assistant librarian, and other help, and for the purchase of books, magazines, etc.

The Board of Trustees is composed of the following officers and members, the first three being ex officio: E. G. Dexter, Commissioner of Education, president; J. A. Wilson, Commissioner of the Interior, vice president; J. L. Dunlevy, secretary and treasurer; Charles A. Hartzell; Cayetano Coll y Toste; T. E. Edwards; Manuel Fernández Juncos, librarian.

Insular Government Finances.

A response in keeping with general business conditions obtaining during the year ending June 30, 1911, is seen in treasury receipts from all principal sources. They

aggregated \$6,813,575.18, or \$1,417,607.85 in advance of the income of the previous year. A material decrease in customs receipts has been anticipated by many in the belief that importations of American goods would gradually replace dutiable foreign merchandise, but instead, coincident with a noteworthy increase in purchases of articles of American origin, there has been a gradual growth of the foreign trade, which exceeded last year by 16 per cent that of the previous year, and produced an 18 per cent increase in the revenue from customs. Internal-revenue receipts amounted to \$2,571,450.02, representing an increase of

\$347,977.50, which was due to a larger income from various sources. The assessment of property in the Island, corrected as of date December 31, 1910, raised its value from \$121,866,149 to \$133,282.453, and caused a corresponding increase of receipts from property taxes.

The condition of the Insular Treasury at the close of the fiscal year 1910-11 was as follows:

Customs revenue receipts during the year amounted to Internal-revenue receipts accruing to the Insular Government made up of \$15,161.42 from inheritance tax; \$136,408.09 from property tax; \$202,128.79 from tobacco tax; and \$2,217,751.72 from other excise taxes, aggregated Receipts from fees, fines, and other miscellaneous sources	2, 571, 450. 02
amounted to	349, 296. 87
Making the total actual revenues collected There also reverted to, and were paid into the treasury on account of insular revenues, representing repayments of loans to municipalities and school boards, repayments of unexpended funds to appropriations, and other transfers,	3, 986, 745. 84
aggregating in all	515, 720. 13
Making the total Insular revenue receipts	4, 502, 465. 97
all on account of municipalities, amounted to	2, 311, 109. 21
Bringing the total receipts of the treasury for the year up to	6, 813, 575. 18
This amount added to the balance remaining at the close of 1909–10	3, 629, 048. 21
Made the total resulting from the year's transactions to be accounted for	10, 442, 623. 39
To meet the current needs of the Government during the past year there was expended on account of the legislature \$60,596.60 To meet the expenses of the executive	
branches 3, 137, 017. 42	
For the support of the judiciary 443, 366. 26 And for miscellaneous purposes 153, 268. 01	
Or a total of	
amounting to 132, 177. 17	
Brought the total amount thus expended and disposed of up to	3, 926, 425. 46

Reducing the amount at the disposition of the Gov-	
vernment to	6, 516, 197. 93
Dispositions on account of trust funds, represented by payments to municipalities on account of taxes collected for them of \$1,518,045.89; to the road bond fund of \$104,119.76; miscellaneous trust fund accounts of	
\$874.122.03; and repayments and transfers \$4,466; in	
all, aggregating	2, 500, 753. 68
Reduced the amount to the credit of the Government at the end of the year in available resources and	other and the second se
trust funds toSegregating from this the amount representing funds held in	4, 015, 444. 25
trust for specific purposes	2, 801, 443. 58
There remains available for expenditure under legislative appropriation	1, 214, 000. 67

Trust funds include \$2,048,510.67, the unexpended balance from the \$3,000,000 issue of bonds to be used in work on the irrigation project; a sinking fund of \$232,962.54 to apply on principal and interest of road bonds; road construction funds amounting to \$328,081.91 remaining from the sale of bonds for that purpose; and \$191,888.46 in miscellaneous trust funds.

The total bonded indebtedness of the Island, including outstanding bonds on account of road construction and the irrigation and municipal bond issues guaranteed by the Insular Government, is \$5,325,000. To offset the Insular Government's bonded debt amounting to \$1,225,000 for the construction of roads, there is now in the sinking fund \$232,962.54, which, plus the \$486,646.27 due from municipalities, leaves its net indebtedness but \$505,391.19, which is more than covered by a special road tax of one-tenth of 1 per cent now being collected. The \$3,000,000 irrigation loan, as well as the \$1,000,000 loan which will probably be made through an additional bond issue authorized by the last legislature, as well as any further indebtedness that may be incurred on that account, will be served by a special tax upon the property benefited by the irri-The bonded indebtedness of municipalities gation project. guaranteed by the Government, amounting to \$1,100,000, has to its credit in sinking and redemption funds \$738,574.01, which reduces this liability to \$361,425.99, also secured by surplus municipal incomes. Thus, the net bonded indebtedness for which the Insular Government is both directly and indirectly responsible, is but \$4,387,021.41, the payment of which, in accordance with the terms of the respective loans, is amply insured by income from taxes and other sources.

Of the available funds at the close of the fiscal year, June 30, 1911, amounting to \$4,015,444.25, \$1,908,456.96 was deposited in New York banks and \$2,106,987.29 in banks in Porto Rico. As the Treasurer is personally responsible for the safety of these funds, he has considered it advisable to deposit them only with such institutions as shall furnish surety bonds and high-grade securities as collateral. In so doing it is his policy to give preference to local banking institutions, and the deposits therein have been limited only by the extent to which they have complied with the requirements imposed by him upon all banks in which Porto Rican funds are deposited.

CHAPTER V.

MUNICIPALITIES.

Municipal Government, Organization, and Descriptions of Municipalities.

◄ HERE are 69 municipalities in Porto Rico consisting of the same number of territorial subdivisions, which, with the Island of Culebra, make up the area comprised within the jurisdiction known as Porto Rico. The principal town in each district is the administrative center from which its municipal government exercises the powers and control therein vested by enactments of the Legislative Assembly of Porto Rico. The act known as the "Municipal Law" was passed These governments are, under and within the March 8, 1906. limits prescribed by law, autonomous, the chief officials thereof being elected by the people of the respective municipalities, and the subordinates being appointed by those so elected. Therefore, with but slight supervisory control from the Central Government, the residents of these municipalities represent communities originally established by the Spanish Government, which are now under the Government of the United States enjoying the privileges of self-government.

Each municipal government organization has at its head a mayor (alcalde), who is the chief executive officer and the representative of the community before the courts and the Insular Government. His powers and duties embrace the approval, publication and execution of ordinances, his action upon such ordinances being final; except upon those relating to sanitary matters, transfer of property, loans, and acceptance of judgment or arbitration in cases before the courts. He appoints all the employees of the municipality and issues all orders necessary for the government of the community in accordance with the laws and ordinances relating thereto.

The local legislative power is conferred by law upon a body existing in each municipality, known as the municipal council, which, in municipalities of Class I, is composed of 9 members; in municipalities of Class II, of 7 members; and in municipalities of Class III, of 5 members.

The mayor, as well as the members of the municipal council, is elected for a term of four years by the people of the respective communities, at general elections held on the first Tuesday after the first Monday in November.

The heads of the several departments of the local governments are a secretary, a treasurer, a comptroller, an inspector of health and charities, and an inspector of public works.

For the purpose of reducing public expenditures, in municipalities of Class III the mayor acts also as treasurer, except where provision has been made for a treasurer when the municipality has fully met its budgetary obligations and is able to meet all of its financial burdens as they fall due. Also, in municipalities of Class III, the duties of secretary and comptroller are performed by one official, while in municipalities of Class II the duties of the office of secretary and comptroller are performed by one or two persons in the discretion of the municipal council.

The municipal governments derive their revenue principally from the proportion of the general property tax of the Island, assigned to them by law. From this tax the Central Government, by which it is collected, retains but 10 per cent to cover the cost of collection, and places the remainder at the disposition of the municipalities—22.5 per cent being assigned to school boards, 7.2 per cent to road work, and 60.3 per cent to general purposes.

Municipal governments are also authorized, by act of the Legislative Assembly, to impose and collect certain local taxes on their own account and use the proceeds from this source for general and specific purposes prescribed by the same authority.

The financial condition of the 69 municipal governments at the close of the fiscal year 1910-11 was, in general, most satisfactory, showing in the aggregate: Cash on hand for all purposes, \$1,234,647.49, of which \$242,970.07 was available for general use, \$42,190.85 for construction and maintenance of roads, \$210,912.56 for specific improvements under loans contracted, and the remainder, \$738,574.01 in bond redemption and sinking funds.

The total net indebtedness of these governments at the close of the fiscal year was \$723,148.61, of which sum but \$5,010.44 represented floating indebtedness, the remainder, consisting of \$24,483.37 current business, for which funds were available,

but accounts unsettled at the close of the year, and \$693,654.80 of fixed indebtedness.

The total net income of the municipalities during the fiscal year, from the sources mentioned, was \$1,502;041.25. Of the total receipts the general property tax contributed \$915,367.59, the remainder having been derived principally from taxes on the slaughter of animals and sale of meats, licenses and permits and public service enterprises.

The expenditures during the fiscal year 1910-11 aggregated \$1,508,229.46, of which \$1,154,638.15 was disbursed on account of current expenses, \$168,137.72 for purchases and improvements, and the remainder in the amortization of debts and the payment of interest.

Municipal governments are burdened neither with the expense of courts—except those of justices of the peace—with maintenance of police, nor with any portion of the general road system of the Island, these expenses being paid direct from the Insular Treasury.

Most of the 69 municipalities are easily reached by means of excellent public highways, others by steam railway and electric tramway, and the distance to those to which the general road system of the Island has not yet been extended is so slight as to involve but a few hours' travel by coach. Many of them representing, as they do, typical Spanish-American communities and containing within their limits numerous reminders of the early colonial days, are of considerable interest, while the fertile valleys, mountain scenery, tropical foliage, and delightful climate, all contribute to the pleasure and comfort of both visitors and permanent residents.

The following descriptions will afford information in brief concerning the various municipalities and the districts in which they are located, and may be of use to persons traveling over the Island, as well as to others interested in Porto Rico:

Adjuntas is situated 18 miles north of Ponce Adjuntas. on the Ponce-Arecibo Road. It has a population of 16,954. The total assessed value of real and personal property within the municipal limits for the fiscal year 1911-12 was \$1,324,385. It is located at an elevation of 1,700 feet above the sea level, in the center of the coffee-growing region, in a small valley surrounded with hills and mountains. One of them, El Novillo Mountain, is 2,200 feet in height, and Mount Guilarte reaches a height of 3,000 feet above the

sea level. Many of the streams, originating in the steep slopes of these mountains, form beautiful cascades and are tributory to the Arecibo, Añasco and Portugues Rivers. The surrounding scenery is delightful. Magnificent views can be obtained from the summits of the mountains, and from some of them it is possible, on a clear day, to see the Atlantic Ocean on the North and the Caribbean Sea to the south.

The climate is cool in summer and delightfully invigorating during the winter months, the thermometer fluctuating throughout the year between 50 and 85 degrees Fahrenheit. The local water supply is piped from a neighboring mountain stream. The central plaza or park is well laid out and picturesque. There are seven schools in the town, four of which are located in a stone building erected by the Department of Education in 1903. In the outlying districts there are 15 rural schools.

From the top of a hill to the west of the town, known as the "Giant," due to its resemblance to a man reclining on his back, a magnificent view is afforded of the Adjuntas Valley, which has in recent years been devoted to the growing of sugarcane. The surrounding hills and valleys are covered with cane fields, coffee trees, banana plants and orange trees.

Near Adjuntas is the range of mountains known as the "Sillas de Calderon," where, after the failure of the revolutionary movement against the Spanish Government in 1896, the leaders of the rebellion hid from the Government forces.

Aguada has a population of 11,587, and a property valuation of \$1.869,922. The town was founded by Aguada. Sotomayor, an officer under Juan Pence de León. was later destroyed by the Indians and was then reconstructed on its present site. Ruins can still be seen where the original town was located. It is situated between Aguadilla and Rincón, about two miles inland from the west coast of the Island. Historians claim that this was the first place in Porto Rico visited by Christopher Columbus and that its name is derived from the fact that he landed there in search of water. The municipality has 14 schools, while in the outlying districts there are two rural schools. The people of the district are devoted to the growing of sugar-cane and coffee and to the manufacture of Many of them are employed in a large sugar mill, El Coloso, in the vicinity, owned by a French company.

The central park and church at Arecibo.



Aguadilla has a population of 21,419, and its real and personal property was assessed in 1911 at \$1,948,606. It is located north of Aguada, on the western coast of Porto Rico, and near to that town. Local tradition says that Columbus filled his water casks from a spring fed by an underground stream which comes to the surface in the center of the town. There has been erected in one of the barrios of the town a monument in honor of the discoverer.

The climate in this vicinity is delightful. The ocean breezes make the days pleasant and the nights cool.

The population of the district is dense. The people are anxious to learn and improve themselves and their surroundings, and the schools are well attended. The principal industries are the growing of coffee, sugar-cane and oranges and cigar making. The town is located on the American Railroad, which connects with other coast towns and the capital, and affords a means of shipping the products of the district to the ports, as well as of bringing to the town many supplies, which are sent thence in ox earts to the interior.

The population is 8,292; assessed valuation, Aguas Buenas. \$442,806. Aguas Buenas is situated in the center of the Island. It was founded in 1838. Located, as it is, in a high mountain region, its principal product is coffee. The climate is delightful, and the vicinity abounds in many springs of excellent water, some of them having medicinal properties. There are in the district a number of caves containing deposits of guano, valuable for use as fertilizer. In the municipal district there are four graded and five rural schools.

Population, 10,815; property valuation, \$818,339.

Aibonito. Aibonito is situated on the Military Road, near the center of the Island, about 80 kilometers from San Juan and 50 kilometers from Ponce. It is located on a plateau about 2,000 feet above the sea level. It is in the center of one of the principal tobacco-growing districts, and the leaf raised there compares favorably with the product of any other district of the Island. Considerable land on the mountain slopes is devoted to coffee growing. The town is provided by means of a good aqueduct with an excellent water supply. On account of the elevation and prevalent winds the district is considered by many to be one of the most agreeable and healthful in the Island. The town has nine graded schools, eight rural schools,

three mission schools, two churches, a hospital and many good private residences.

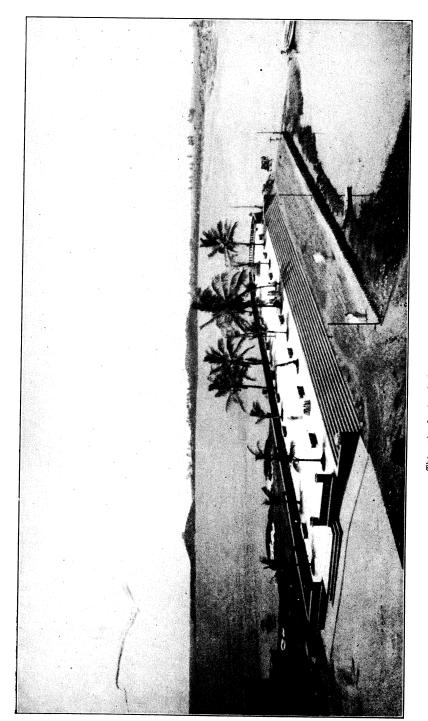
Population, 14,407; property valuation, \$1,465,050.

Añasco. The town of Añasco was founded in 1773. It is situated in the western part of Porto Rico, about three miles from the coast. It is located on the American Railroad, and is also connected with the city of Mayagüez by a good highway. It is located in an extensive sugar-cane raising district, and among its other products are coffee and cocoanuts.

The Añasco River, which runs through the district, according to local tradition, is the river in which a Spaniard by the name of Salcedo was drowned by the Indians in order that they might ascertain the truth of the assertions that had been made to them as to the immortality of the Spanish invaders. There are some falls near the town which should afford excellent waterpower. Añasco has 26 schools and has erected two fine concrete school buildings.

Arecibo is located near the north coast of the Island, about 50 miles west of San Juan. It has a popu-Arecibo. lation of 42,429. The assessed value of property within the district is \$7,715,498. The municipal corporation was authorized as early as 1537 by a Royal Decree of the Spanish Crown, and, according to a local historian, the town was founded in 1616 under the name of San Felipe de Arecibo. The surrounding country is devoted to fruit, coffee, and sugar growing, although recently other crops, particularly coffee, have been giving way to the rapidly increasing production of sugar-cane. The drainage of extensive and heretofore unused swamps known as the "Caño de Tiburones" is converting them into rich sugar lands. The city is reached from the east and west by the American Railroad, and is connected with the south and west by excellent highways. The harbor is an open roadstead. The municipality has 28 graded and 36 rural schools, and there are within its limits several cigar factories and other manufacturing plants.

The population of Arroyo, according to the census Arroyo. of 1910, is 6,940. The assessed value of real and personal property is \$1,349,740. Arroyo is located on the south coast, on the main highway, a short distance east of Guayama, in the midst of extensive sugar-cane growing lands. Near the town are the Virella Springs, the waters from which are said to have notable curative powers. The district has the



The water front and place of recreation, Arecibo.

reputation of being one of the healthiest in the Island, the occurrence there of epidemics never having been recorded. The municipality is credited with being the first place where telegraph service was used in Porto Rico, a line having been installed there by its inventor, Samuel B. Morse, while visiting members of his family, who were interested in one of the many sugar estates in the vicinity.

The municipality of Barceloneta, formerly a Barceloneta. barrio of the municipality of Manatí, was created by an act of the Legislative Assembly approved March 10, 1910, which became effective January 1, 1911. It is located in the northern part of the Island on the line of the American Railroad. Sugar-cane and citrus fruits are the important products of the lowlands, while coffee is raised extensively in the uplands. The assessed value of real and personal property in the district is \$1,842,674.

The municipality of Barranquitas has a popu-Barranquitas. lation of 10,503. Real and personal property is assessed at \$478,314. The town is situated near the center of the Island in one of the beautiful mountain districts, at an elevation of 1,700 feet above sea level. It is reached from San Juan and the south by excellent highways, and is about 17 kilometers north of Aibonito.

There are a number of caves near the town, which are supposed to have been inhabited by the original Indians, as many Indian relics have been found in them. The floors of these caves are rich in deposits of guano.

According to the census of 1910, the municipality Barros. of Barros has a population of 15,028. The assessed value of real and personal property is \$549,924. This municipality is located on a good highway among the spurs of the central range of mountains, a short distance to the west of Barranquitas, and is surrounded by rich agricultural lands, principally devoted to coffee, tobacco, and fruit raising. The region is noted for its picturesque mountain scenery and beautiful cascades. It was founded in 1825, but its progress has for years been retarded by inadequate transportation facilities, which recently have been improved.

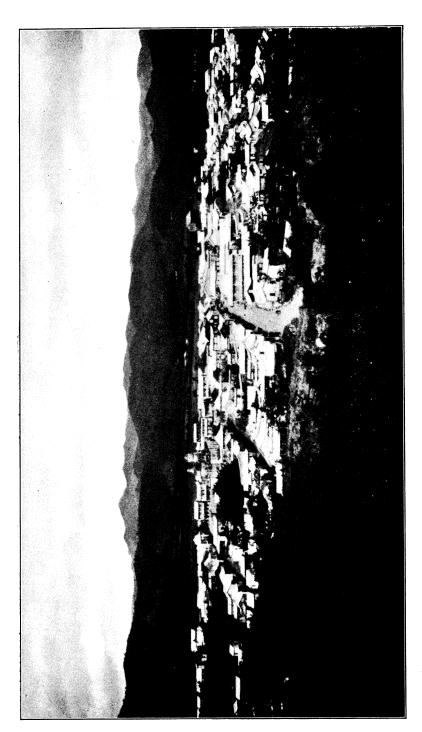
The population of the municipality of Bayamón, according to the last census, is 29,986. A recent assessment places the value of real and personal property at \$3,549,747. The municipality is located near

the north coast of Porto Rico, a short distance from San Juan, on a site donated in 1772 by the Ramírez de Arrellano family. It had its origin in a small community known as "Pueblo Viejo," founded in 1509 by Ponce de León. This district claims the distinction of being the one in which the first city in Porto Rico, originally known as "Villa de Caparra," was founded by the Spanish settlers. The name was later changed by order of Captain Ovando, Governor of Santo Domingo, to "City of Porto Rico," and was the capital of the Island until 1521, when the present city of San Juan was made the seat of the local Government.

Bayamón is on the line of the American Railroad, and is also reached from the capital by means of a ferry and a narrow-gauge railway. The surrounding country is being rapidly developed by American planters, and is now one of the most important and progressive grapefruit, orange, and pineapple growing districts in the Island. Among the manufacturing establishments in the district are a sugar mill, ice plant, brick, and match factory and a large cigar factory, employing over a thousand people and turning out many millions of cigars a month.

The municipality of Cabo Rojo has a population of 19,562, and the assessed value of real and Cabo Rojo. personal property in 1911 was \$1,591,722. located on the southwestern coast of the Island in a rugged valley, drained by two streams which flow through it from the mountains to the Caribbean Sea. It was founded under a decree issued by Governor Muesas in 1774. The district is devoted chiefly to the growing of sugar-cane, and to a small extent the raising of coffee, tobacco and cocoanuts. A number of the inhabitants are engaged in the collection of salt, of which there are large deposits along the seashore. The town is reached by the American Railroad. The municipality has eight graded schools and 22 rural schools, one of the latter being an agricultural school.

Caguas is situated on an extensive plain in the eastern-central part of the Island. It is 37 kilometers from San Juan, with which it is connected by a steam tramway and the Military Road to Ponce. The population of the municipality is 27,160, and the value of real and personal property of the district is assessed at \$4,164,549. The principal industries are the raising of sugar-cane and tobacco and the manufacture of cigars. There are four important cigar





factories and a large number of smaller ones in the municipality. There are also in the district two large sugar mills, to which the cane raised on the surrounding plantations is sent. Coffee is cultivated extensively in the mountain districts. The municipality is supplied with water by means of an excellent aqueduct, and is lighted with electricity from the Comerío power plant. A large school building, recently erected in the municipality, is one of the best and most imposing in the Island. There are altogether in the district 14 graded schools and 11 rural schools. The municipality has a good hospital and a public library. Caguas is the birthplace of the celebrated Porto Rican poet, José Gautier Benítez. A short distance from the town, on the banks of the Caguitas River, are some mineral springs whose waters are believed to possess certain medicinal properties.

Camuy is a municipality with a population of 11,342, Camuy. located on the line of the American Railroad between Quebradillas and Hatillo on the northwest coast of the Island. The assessed value of real and personal property in the municipality in 1911 was \$1,630,206. The surrounding territory is devoted to the raising of coffee, tobacco and sugarcane. It has four graded and 11 rural schools.

Carolina. Carolina has a population of 15,327, and the local wealth was assessed in 1911 at \$1,831,132. It was founded in 1855 and named in honor of St. Ferdinand of Carolina. It is located in a rich cane-producing district in the northeastern part of the Island, on an excellent highway known as the "Carolina Road," which connects the main Military Road with the south by way of the eastern end of the Island.

The municipality of Cayey has 17,711 inhabitants. Cayey. The assessed valuation of real and personal property in 1911 was \$1,756,322. It was founded in 1774 on a plain to the southeast of the center of the Island, among the mountains just north of the principal range. It has an altitude above sea level of a little over 1,300 feet. Its location in the mountains, its altitude, and the prevailing winds make it one of the healthiest and most desirable in the Island. It is one of the municipalities on the famous military highway from San Juan to Ponce. It is at this point that the highway to Guayama branches off from the Military Road. On account of its healthful climate one of the military posts for acclimating troops recently arrived from Spain was, during the Spanish

régime, located here. It is at present the site of a United States army post. The principal crops of the region are coffee and tobacco, the Cayey tobacco being considered equal to any other raised in the Island. The town is supplied with water by means of an aqueduct. It has a municipal hospital, churches and 12 graded and 12 rural schools.

This municipality has a population of 18,398, and its local wealth was assessed in 1911 at \$1,103,669. It is located in a valley almost entirely surrounded by mountains, slightly north of the center of the Island, on the highway from Juana Díaz to Manatí. The geological formations found in the vicinity are very interesting. Apparently some great convulsion of nature has split the lofty hills, which present almost vertical sides to the valley in which the town is located. Caves abound in the neighborhood, some of which are extensive. Cattle, coffee, and tobacco are the principal products of the surrounding territory.

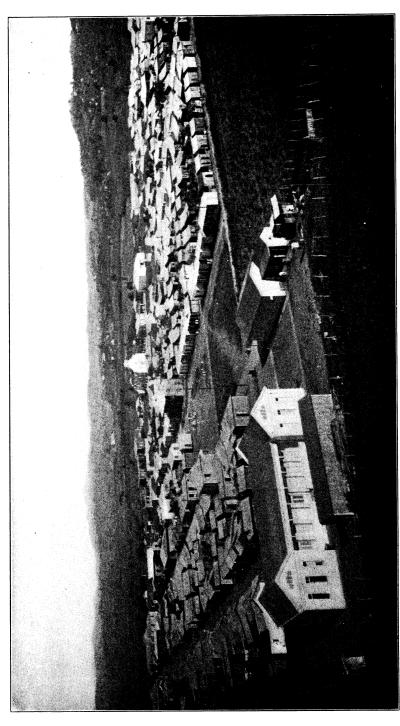
The municipality of Cidra has a population of 10,595.

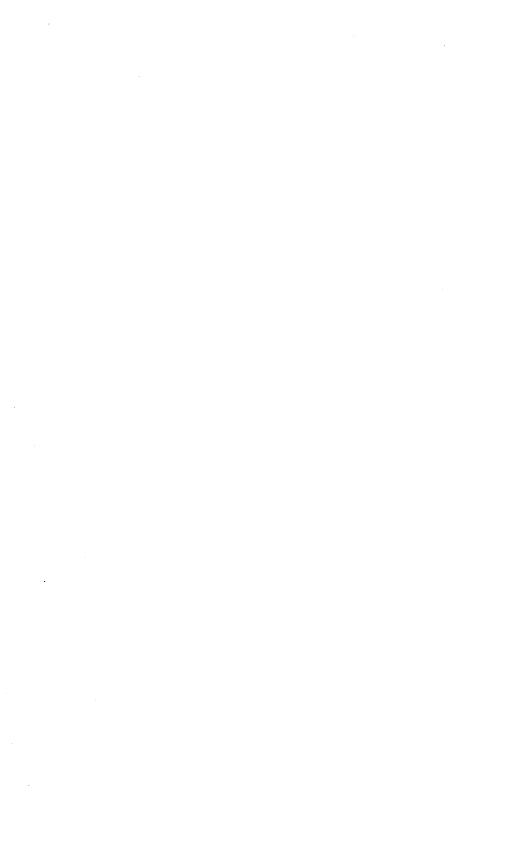
Cidra. The value of real and personal property was assessed at \$516,363. Cidra is located in the mountain district near the eastern end of the Island, on the road between Comerío and Las Cruces, which branches off from the main Military Road at the latter place. It has an elevation above sea level of 1,300 feet. Its altitude and location among the mountains make it a cool and healthful spot. The municipality has four graded and nine rural schools.

Coamo has 17,129 inhabitants, and its local wealth The town was founded in is placed at \$1,332,925. Coamo. The Coamo Springs, whose waters have for years been famous for their medicinal properties, are located in this district. These springs are reached by an excellent highway and are visited by many persons who take advantage of There is at the springs a well-equipped sanathe hot baths. The surrounding territory produces coffee, sugarcane, oranges and other tropical fruits. The municipality has a hospital, graded schools, and an industrial school, as well as both Catholic and Protestant churches. The town is supplied with water from the Coamo River by means of an aqueduct, erected in 1898.

The municipality of Comerío has 11,170 inhabitants, comerío. and the assessed valuation of real and personal property for 1911 is \$875,779. The town was founded in

Panorama of Juncos.





1826 under the name of Sabana del Palmer, or, translated, Palm Grove Meadow, on account of the many groves of palm trees in the valleys and on the neighboring mountain slopes. The principal products of the district are coffee and tobacco, while sugar-cane and fruits are grown to some extent. There are in the vicinity two caves of considerable extent, which contain large deposits of guano. They seem to have been inhabited by the original Indians, as in many places ancient inscriptions and carvings are found on the walls. Comerío Falls afford excellent waterpower, and it is here that the Comerío Power Plant, which furnishes electric power to many of the towns and cities of the Island, including the electric street railways, is located. The municipality has five graded and nine rural schools.

Corozal has a population of 12,978, and its local wealth is assessed at \$508,666. It is located in a mountainous region on the road from Bayamón to Toa Alta, in the northern part of the Island. The surrounding territory produces considerable coffee, sugar, tobacco, oranges and other fruit. Gold is found in the bed of the river which passes through the district, and natives manage, by crude methods of washing, to obtain enough of it to make a living. In this vicinity is the cave of Quintero, in which there are deposits of guano. Although the cave is far above the level of the ocean, sea shells are found distributed over its floors.

The municipality of Culebra has a population of Culebra.

1,315, and is located on the Island of Culebra, a few miles off the east coast of the Island of Porto Rico. It is within the territorial jurisdiction of the Government of Porto Rico. Its local wealth is assessed at \$130,598. The few inhabitants are devoted to agricultural pursuits. The island has an excellent harbor.

Dorado is a municipality with 4,885 inhabitants.

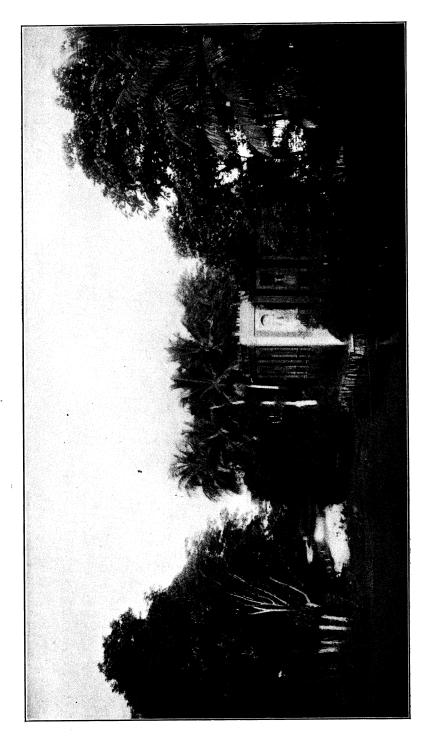
Dorado. Its local wealth was assessed in 1911 at \$901,702. It is located near the north coast of the Island, on the American Railroad, between Bayamón and Vega Baja. The municipality has nine public schools. The surrounding territory is devoted to the raising of citrus fruits, pineapples, and cattle.

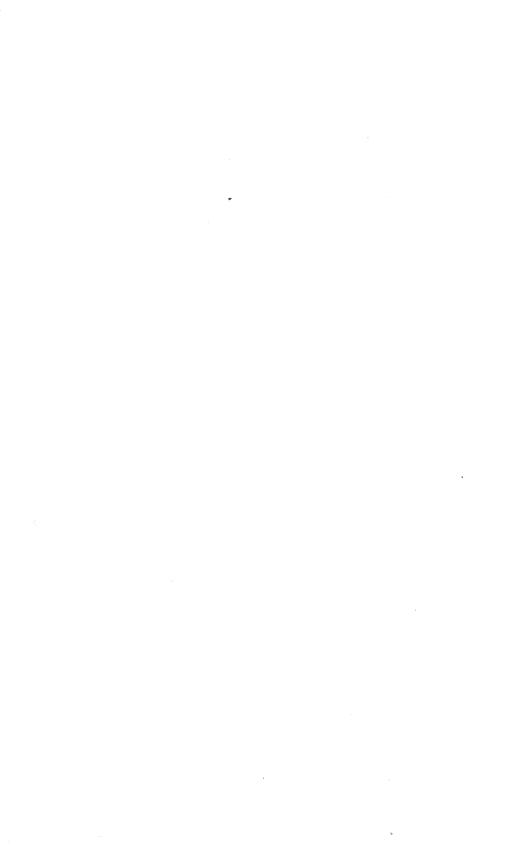
Fajardo has a population of 21,135, and its local Fajardo. wealth was assessed in 1911 at \$5,859,670. The town is located about 1½ miles from the coast at the northeastern extremity of the Island, on the main highway from San Juan. Two large rivers, the Fajardo and the

Luquillo, flow on either side. The district has 24 graded and 21 rural schools. It is one of the wealthiest sugar districts in the Island, and in it is located the large plant of the Fajardo Sugar Company.

Guayama has a population of 17,379, and its wealth, as assessed in 1911, is \$3,532,573. Guavama. situated on a broad and fertile plain, some 200 feet above sea level, on the south coast. It is reached by excellent highways from San Juan, from Ponce, and from the The road from San Juan passing eastern end of the Island. through Cayey presents between Cayey and Guayama a marvel of engineering skill and construction. It winds through the mountains and crosses the central range at an altitude of 2,500 feet. The scenery along this road, and especially the panorama of the coastal plain on which Guayama is located, which comes into view when passing one of the many turns in the road, has long been the delight of travelers, who have pronounced its beauty unequaled outside of the Alps. The town was founded in 1736. The name Guayama is of Indian origin, meaning the "Region of Fire," due to the severe droughts that were prevalent in former years. Recent irrigation projects have, however, transformed the territory into one of the most fertile sugar-growing districts of the Island, and extensive additional irrigation work now in progress will considerably increase its wealth. The water supply of the municipality is obtained from a mountain stream by means of an excellent aqueduct. It has 16 graded schools. There are in the district a number of large sugar mills, and these, together with the sugar plantations, afford occupation to many of the inhabitants.

The population of Guayanilla is 10,354, and its Guayanilla. local wealth \$1,201,864. It is located on the southern coast of the Island, between Ponce and Yauco, on the line of the American Railroad. The bay affords a commodious, land-locked harbor for vessels of light draft. The breezes from the Caribbean Sea and the agreeable climate contributes toward favorable health conditions, which make Guayanilla Beach attractive as a summer resort to many people from other places in the Island. The municipality has 4 graded and 12 rural schools. The principal industries of the district are the raising of sugar-cane and sugar making. Guayanilla is one of the most progressive of the small towns in the Island.





Gurabo, according to the last census, has 11,139 inhabitants. The assessed value of real and personal property for 1911 is \$1,200,174. The town was founded in the year 1815, in the eastern part of the Island on the Gurabo River, a tributary of the Loíza River. It is a progressive municipality, and one of the many in the Island in which electric lighting has been installed and other modern improvements undertaken. The raising of sugar-cane and tobacco, to which large tracts of land in the vicinity are devoted, contribute to the wealth of the district and afford occupation to many of its inhabitants. The town has 5 graded and 10 rural schools.

Hatillo has a population of 10,630, and its local wealth was assessed in 1911 at \$1,188,161. It is located on the northern coast of the Island, west of Arecibo, on the line of the American Railroad. It was founded in 1823. The surrounding territory is devoted to the raising of cattle, tobacco, sugar, and coffee. Its location on the seashore and its climate, tempered by the prevailing ocean breezes, make it attractive to people from Arecibo and other towns as a summer resort.

The municipal district of Humacao has a population of 26,678. The value of real and personal Humacao. property was in 1911 assessed at \$4,017,823. was founded on January 15, 1793, at the eastern end of the Island; was declared a villa on September 7, 1881, and was raised to the rank of a city January 23, 1894. The city is beautifully situated in a valley, surrounded on three sides by mountains, with the ocean six miles to the east, from which cool winds blow, so that the climate is always agreeable. The Humacao River, which flows through the district, provides an excellent water supply for the city, as well as a quantity of fish for food. It is connected with other cities of the Island by excellent The lowlands of the district are very fertile, and are devoted to the raising of sugar-cane and tobacco, while considerable coffee is raised on the mountain slopes. The city maintains an excellent band, has 21 graded schools and 22 rural schools, a municipal library, as well as school libraries in many of the schools.

Isabela. The municipal district of Isabela has a population of 16,852, and the assessed value of real and personal property therein is \$1,013,305. It is located on the

northwestern coast of the Island, on the line of the American Railroad, on a plain overlooking the ocean, at an elevation of some 300 feet. The invigorating air and sea baths attract many people to the locality during the summer months. Sugar-cane, tobacco, coffee, and fruits are produced in the surrounding territory. There are also in the neighborhood many caves which are rich in phosphates.

Jayuya. March 9, 1911, the barrios of Jayuya Abajo, Jayuya Arriba, and Mamayes Arriba were separated from the municipality of Utuado and made a separate municipal district, known as the "Municipality of Jayuya." The population of the district is 10,279, and its local wealth \$798,783.

Juana Díaz. Bocal wealth is \$3,237,453. It is located on the Military Road a short distance northeast of Ponce. The site was donated by a lady named Juana Díaz on condition that the municipality should be named after her and that none of the municipal land should ever be sold or given away. Coffee is extensively cultivated in the district, especially in the vicinity of Villalba, where the most modern methods are observed in its culture, resulting in a product that is difficult to excel. The wealth of the district also depends to a certain extent upon the raising of cattle and fruits. A short distance south of the municipality are the Baths of Catoni, the mineral waters of which contain medicinal properties.

This municipality has a population of 11,692, and Juncos. the assessed valuation of its real and personal property is \$1,975,765. It is situated in the eastern part of the Island on the highway from Caguas to Humacao. The principal products of the district are sugar and tobacco, while some coffee and quantities of pineapples, bananas, mangoes and oranges are raised. Deposits of iron have been found in the vicinity, although at the present time they are not being developed. The large sugar mill of the Juncos Central is located in the district. The municipality is lighted with electricity, has a municipal hospital, seven graded and nine rural schools.

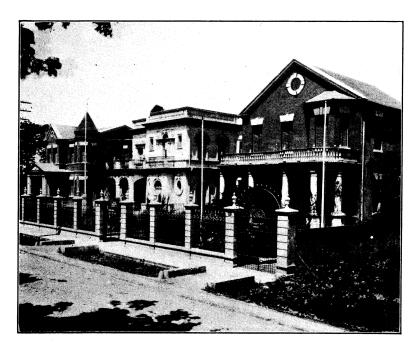
Lajas has 11,071 inhabitants, and its local wealth

Lajas. was placed in 1911 at \$1,303,610. It is located in
the southwestern part of the Island, on the American

Railroad, on a large and fertile plain, which produces a great
deal of sugar-cane, also tobacco and fruit. There are a num-



Church of Our Lady of Guadalure, Ponce.



Residences in Ponce.

ber of sugar mills in the vicinity, and the pineapples, which have the reputation of being among the best in the Island, are used by a local canning factory in the preparation of its product. There are 7 public schools in the town and 15 in the rural district, as well as an institution founded by a citizen of the locality as an agricultural and industrial school.

Lares has a population of 22,650, and its local wealth was assessed in 1911 at \$1,575,699. It is situated in the western part of the Island, on the highway from Arecibo to Mayagüez, at an altitude of 1,250 feet above sea level. Coffee is the most important of the products of the vicinity, although the amount of sugar-cane grown in the neighborhood is increasing from year to year. The district has 29 public schools, and there is located in the town a large private school, a mission school, a municipal hospital, and Protestant and Catholic churches. An ice factory, located in one of the wards of the municipality, supplies Lares and neighboring towns with ice. There are in the neighborhood several interesting caves that were at one time inhabited by the Indians, and in which many specimens of their handiwork have been found.

Las Marías has a population of 10,046, and its local wealth was assessed in 1911 at \$1,341,661. It was founded in April, 1871, in the western portion of the Island, not far from Mayagüez, and on the main highway between Mayagüez and Lares. The municipality was formerly a part of the municipality of Mayagüez, but in 1871 the Disputación Provincial issued a decree making it independent. It has an elevation of 1,000 feet above sea level. Coffee, sugar-cane, tobacco and cattle raising contribute to the wealth of the district. Owing to the altitude in which the town is located the temperature is pleasant, and it is one of the coolest and healthiest places in the Island.

Loíza has 13,317 inhabitants, and the assessed value Loíza. of real and personal property in 1911 was \$2,271,451. It was originally founded on the coast, near the mouth of the Loíza River, in the northeastern part of the Island, and in January, 1910, the site was removed a short distance inland to where the town is now located, on the highway known as the Carolina Road, between Carolina and Canóvanas. It is in an extensive sugar-cane growing district, and its inhabitants are employed in the surrounding sugar plantations and nearby sugar mills.

Manatí. was 17,240, and its local wealth was assessed in 1911 at \$2,384,146. It is located on the line of the American Railroad in the northern part of the Island, three miles from the seashore, in a beautiful valley drained by the Manatí River. The soul of the surrounding territory is very fertile, and sugarcane is extensively cultivated in the valley and lowlands along the sea coast. Coffee is raised extensively in the uplands, and pineapples, grapefruit, and oranges are also among the important products of the district. A number of schools in the municipality proper and the surrounding rural districts afford educational facilities that compare favorably with those of any other municipality in the Island.

Maricao has a population of 7,158, and its local Maricao. Wealth was placed in 1911 at \$1,065,622. It is situated east of Mayagüez and northeast of San Germán, about 1,400 feet above sea level. The principal product of the district is coffee, which compares favorably with coffee grown in any other part of the Island. The numerous streams from the neighboring mountains furnish abundance of water for cattle and power. The municipality has four graded and eight rural schools, as well as Catholic and Protestant churches. The favorable climate, altitude, and excellent sanitary conditions make this district a desirable resort for those who seek a cool and pleasant place for the summer months.

Maunabo has 7,106 inhabitants, and its local Maunabo. wealth was assessed in 1911 at \$602,816. It is situated near the coast in the southeastern part of the Island, in the sugar-cane growing district. The surrounding territory also produces tobacco, coffee, and various kinds of fruits. The excellent highway which passes through the municipality affords it communication with Guayama, Humacao and other cities on the coast in either direction.

Mayagüez has 42,429 inhabitants. The assessed Mayagüez. value of real and personal property in 1911 was \$6,890,816. It is located on the coast at the western end of the Island. It came into existence in 1763 and was named in honor of "Nuestra Señora de la Candelaria de Mayagüez" (Our Lady of Candlemas of Mayagüez). It was originally in the jurisdiction of San Germán, but in 1836 its separation from San Germán was authorized by the Government at Madrid. Its commodious harbor, which affords a safe anchorage to

A place of beauty in Ponce.



large vessels, is frequently visited by steamers from various parts of the world. There are three plazas, or public parks, within the city, known as Columbus Square, Flower Square, and the Old Plaza. The most important buildings are the city hall, the San Antonio Hospital, courthouse, fire department, public slaughterhouse, public market, and the Agricultural Experiment Station. Mayagüez is connected with other cities of the Island by means of the American Railroad, which has two stations within the city. Transportation between the different parts of the municipality is afforded by means of a street rail-The district of Mayagüez contains a number of sugar estates, coffee plantations and fruit groves. Mayagüez is not only a shipping point for the products of the adjacent territory over the railroad and by reason of its excellent harbor, but it has two lines of transportation to adjacent interior towns and agricultural districts. Its commercial activity makes it one of the foremost cities in the Island.

Moca has a population of 13,640, and the assessed value of real and personal property for 1911-12 is \$803,333. It is located in the northwestern portion of the Island, a short distance from Aguadilla, on the highway which leads to Lares. Although the town is small, the district in which it is situated it noted for the fertility of its soil and the municipality owes its name to the excellent coffee produced in the vicinity. Sugar-cane is also grown extensively in the neighboring lowlands.

Morovis has 12,446 inhabitants, and its local wealth Morovis. is \$651,387. It is situated in the interior, north of the center of the Island, about 52 kilometers from San Juan. The surrounding country is devoted principally to the raising of coffee, sugar, tobacco and live stock. Its lands are abundantly irrigated by means of the numerous mountain streams, which in their descent form many picturesque cascades and falls. In the vicinity are some extensive caves, one of which is in the form of a parallelogram and has the appearance of a church. It is believed to have been at some past period the abode of the original inhabitants of the Island. Many extraordinary and remarkable stalactites are to be seen in these caves.

Naguabo has a population of 14,365, and its real and personal property was assessed in 1911 at \$1,956,528. It is situated in the eastern part of the Island, a short distance from the Luquillo Range of moun-

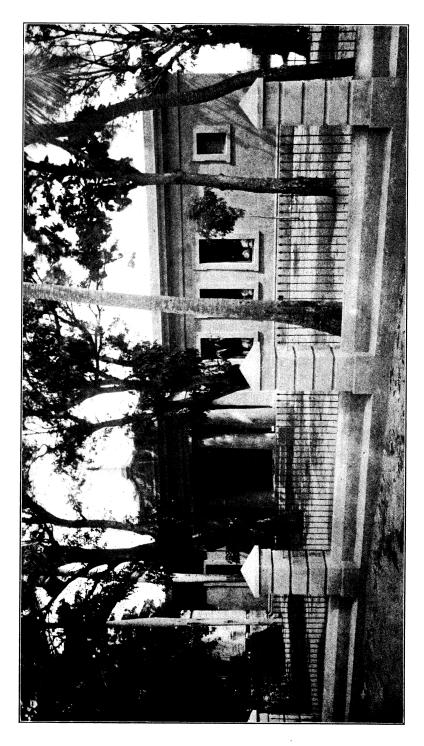
tains, on the highway between Humacao and Fajardo. The location of this municipality, but a short distance from the coast and at the foot of the mountain range, is extremely picturesque, as well as cool and healthful. The principal industry of the surrounding territory is the raising of sugar-cane, while grapefruit and oranges are also grown to a considerable extent. The municipality has 11 graded and 10 rural schools.

Naranjito has a population of 8,876. Its local Naranjito. wealth was assessed in 1911 at \$338,477. It is located in the mountain district on the highway between Bayamón and Comerío, in a region noted for its picturesque scenery. The principal products of the surrounding territory are tobacco and fruits.

Patillas has a population of 14,448, and the as-Patillas. sessed value of its real and personal property in 1911 was \$1,242,881. It is located near the coast in the southwestern portion of the Island, on the main highway east of Guayama. The surrounding territory is extensively devoted to the growing of sugar-cane, and it is one of the several districts embraced in the southern irrigation project.

Peñuelas has 11,991 inhabitants, and its local Peñuelas. wealth was assessed in 1911 at \$1,086,859. It is situated in the southern part of the Island, at a distance of 24 kilometers from Adjuntas and 20 kilometers from Ponce. Up to recently facilities for transportation between this municipality and others in the Island were so poor that the development of the surrounding territory has been considerably retarded, though the favorable temperature, sufficient rainfall, and fertile lands assure large crops for the future. The surrounding country is suitable for the raising of sugar-cane, coffee, and fruits to a much larger extent than in the past. The municipality has four graded and seven rural schools.

Ponce. of 63,444. The assessed value of real and personal property for the fiscal year 1911-12 is \$12,736,859. Ponce is situated in the southern part of the Island, and has a larger population than any other municipal district in the Island. It has a pleasant climate, the temperature being lowered by the constant breezes prevailing during the greater part of the year. Industrially and commercially, Ponce is one of the foremost cities in Porto Rico, being the shipping port of the principal coffee-growing districts, and of a large propor-





tion of the sugar produced in the Island. The city proper has 61 graded schools, a kindergarten, and a high school, the largest There are also eight graded schools in The Playa, a suburb of the city, and scattered throughout the district 37 rural schools. There are also in the city five private schools, with a total enrollment of 670 pupils. The city has two Catholic, two Baptist, one Episcopal, three Methodist, and one United Brethren churches. Hotel accommodations are good. There are within the municipality the following hospitals and charitable institutions: City hospital, blind asylum, women's hospital, insane asylum and St. Luke's Hospital. Ponce is easily accessible to all parts of the Island by means of an excellent road system, and is the terminus of the famous Military Road, extending from San Juan across the Island. It is also the terminus of the American Railroad. The port has a commodious harbor, which accommodates the many large sea-going vessels that call there to take on cargoes of sugar, coffee, and The principal industries of other products of the territory. the city are the manufacture of cigars, cigarettes, rum, soda water, carriages, hats, laces, and embroidery. There are two ice plants, an electric-lighting plant, a telephone company, with local and long-distance service; and a sanitary milk company, with sterilizing plant and distributing depots. The theater, known as "La Perla," is one of the best in the Island; while the Hippodrome, where horse races are frequently held, and the baseball grounds and athletic field, the Casino and the Spanish Club, all contribute to the amusement and social life of the inhabitants. There are two daily newspapers, the Porto Rico Eagle and El Diario, besides several other publications issued weekly or monthly. Within the district are the Quintana Baths, which are visited by many persons on account of the hot springs, the waters of which are believed to possess medicinal properties.

Ponce is one of the first places at which the American forces landed in Porto Rico. On July 25, 1898, news was received at Ponce that the American squadron had cast anchor in Guánica Bay. Soon the alarm and stir among the Spanish troops stationed in the city heralded the approach of the American forces to Ponce. Some of the Spanish force was sent toward Guánica with a view to intercepting the invaders. On the afternoon of July 27, 1898, the American squadron anchored in the harbor of Ponce, bringing numerous troops, which were landed on the

morning of the 28th and were most cordially and enthusiastically welcomed by the citizens. They took possession of the city after having entered into an agreement with the Spanish forces, in accordance with which the latter withdrew toward Aibonito.

Quebradillas has a population of 8,152 and its local wealth was assessed in 1911 at \$704,578. It is located near the coast, in the northwestern part of the Island, on the line of the American Railroad between Isabela and Camuy. The surrounding territory is devoted principally to the raising of sugar-cane, tobacco, coffee and cotton.

Rincón has 7,275 inhabitants, and the real and Rincón. personal property in the municipality was assessed in 1911 at \$609,213. It is located at the western extremity of the Island, on the American Railroad, between Añasco and Aguada. It is situated in the sugar-cane growing district, and near it is a large sugar mill known as the "Central Córsica."

Río Grande's population, according to the Río Grande. census of 1910, is 13,948; while the last assessment places the value of real and personal property in the municipality at \$1,835,894. The municipality is located in the northeastern part of Porto Rico, about 3½ miles from the coast. It lies in a valley near the Luquillo Range of mountains. The climate is cool and pleasant, owing to the prevailing trade winds which blow from the ocean. Lying, as it does, on a coastal plain, in one of the principal sugar-cane growing areas, the inhabitants of the district are principally devoted to that industry. Río Grande is connected with other municipalities by excellent highways and a railway.

Río Piedras has a population of 18,880. The Río Piedras. assessed valuation of real and personal property in 1911 was \$3,588,542. The town is located about seven miles south of San Juan, on the Military Road. It is on the line of the American Railroad and is the terminus of the San Juan electric line and of the Caguas Tramway Company's line, and is the location of the construction and repair shops of these companies. Río Piedras was founded by the Spanish Government in 1714, under the name of Río Piedras (Stony River). The adjacent territory is devoted to the raising of sugar-cane, cattle, and fruit. The reservoir from which the water supply of the city of San Juan is obtained is also in this vicinity. Among the principal industries of the municipality are the



manufacture of lime and brick. Among the noteworthy institutions in the town are the Capuchin Monastery, the municipal hospital, the city hall, Catholic and Protestant churches, the Insular Normal School, and the rapidly developing University of Porto Rico. It was in Río Piedras that La Torre, a former governor under Spain, constructed a sanatorium under the name of "La Convalecencia" for Spanish seldiers. The building and surrounding grounds were later used by officers of the Spanish army and finally by the Spanish Governors General of the Island as a summer palace. The building has recently been demolished with a view to converting the grounds into a public park. The magnificent trees, luxuriant foliage plants and tropical flowers make the place one of beauty and especially attractive to visitors.

Sabana Grande. Sabana Grande is 11,523. Its local wealth was assessed in 1911 at \$543,154. It is situated on the south side of the Island, about 15 kilometers north of Guánica Harbor. Owing to its location and dry climate it is one of the most healthful places in Porto Rico.

The district is devoted to the raising of coffee, sugar-cane, and tobacco. It is on the line of a branch of the American Railroad. The municipal corporation occupies a building of its own, in which are located the jail, the office of the civil registrar and the police court.

The community is well provided with educational facilities, there having been erected recently a building for public schools within the town, and an agricultural school is maintained on the outskirts. Both the building and the surrounding land used by this school are the property of the local school board.

The municipal district of Salinas has 11,403 inhabiSalinas. tants, and its local wealth is assessed at \$3,347,155.

It is located in the southern part of the Island, between Santa Isabel and Guayama, on the Ponce and Guayama Railroad, and on one of the principal highways about a kilometer from the shores of the Caribbean.

The principal industries in the district are the manufacture of salt, cattle raising, the growing of sugar-cane and the manufacture of sugar. The sugar industry is by far the most important, and as the irrigation work in the vicinity is extended more land is being devoted to the raising of sugar-cane, while at the same time the yield per acre of the present estates is

being continually increased. The sugar mill known as the "Central Aguirre" is located not far from the town.

The school system of the municipality is constantly being improved. There are at present 8 graded and 11 rural schools. The town has erected a substantial concrete school building and another is projected for the near future.

The town of Salinas is a comparatively new community, but there have been found in the vicinity many interesting relics of the Indians that formerly inhabited Porto Rico. Between Guayama and Salinas, at a place known as "Pueblito del Carmen," there are heaps of shells, among which are to be found dishes, hatchets and other Indian relics. Among the most interesting of the relics that have been unearthed is a stone collar, the distinguishing sign of a chief or "cacique," and considered very rare.

In the vicinity there is a cave known as "Piedra del Collado," which is supposed to have been the dwelling place of prehistoric Indians, as the walls are adorned with figures and in it many utensils have been found. The most interesting cave is one in the barrio of Río Jueyes. This appears to be partially artificial, and consists of two rooms, one above the other, connected by a rough stairway. In the roof is a star-shaped opening which serves as a ventilator. In the lower room can be heard a sound which indicates the presence of an underground river or spring.

San Germán. the last census, is 22,143. Its wealth is assessed at \$2,365,654. It is located in the southwestern part of the Island, on the line of the American Railroad, between Mayagüez and Sabana Grande. It was founded in the year 1512, and was named by Diego Columbus, son of the great discoverer, in honor of Germaine de Foix, the second wife of Ferdinand the Catholic. The early history of this municipality is especially interesting. The fortunes of the community have been marked by many reverses. It was attacked and destroyed repeatedly by Carib Indians and pirates, and as a consequence the site of the town was moved from one place to another along the southern shore of the Island.

The first municipal council of San Germán was authorized by Royal Decree of February 4, 1515. Another Royal Decree, June 15, 1877, raised the community to the rank of city.

Central Plaza, Utuado.

 The town was attacked and destroyed by the French in 1528 and rebuilt. In 1571 its present location was definitely fixed by a Royal Decree. It was again attacked by the English in 1748, who landed at the port of Guánica, but were repulsed and forced to re-embark.

There was built in this community in 1538 by the Dominican Friars a church called "Convento de Porta Cœli." The age of it testifies to the antiquity of the town.

On account of the topography of the surrounding country San Germán is locally known as the "City of the Hills." It overlooks the rich valley of the Guanajibo River. There is a range of mountains to the south and another to the north of the town which so divert the trade winds as to make them blow freely over the valley and town, making the climate of the locality delightful. The favorable climatic conditions were so well recognized by the Spanish Government that for many years large barracks were maintained there, where Spanish troops en route from Spain to Cuba were acclimated.

The lowlands in the surrounding territory are devoted almost exclusively to the cultivation of sugar-cane, while coffee is the principal product of the mountain districts. A considerable quantity of fruit is also grown in the locality.

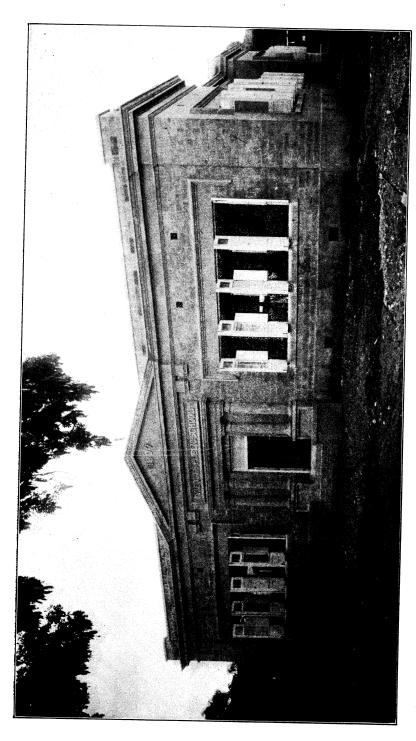
The agricultural and commercial interests in the municipality have been greatly improved during the past five years by the completion of the main line of the American Railroad.

There are in the town two banking institutions, eight whole-sale business houses and numerous retail stores. The town has a theater, four hotels, a charity hospital, and churches of both denominations. Among the public buildings are the city hall, two graded-school buildings, the municipal market, and the military barracks. There is maintained in one of the school buildings an excellent library. In addition to the public schools there are two educational institutions maintained by religious denominations.

The municipal district of San Juan has 48,716 San Juan. The assessed value of real and personal property in the municipality was placed in 1911 at \$26,177,129. It is the Capital of Porto Rico, and is located on the north coast near the eastern end of the Island. It received its municipal charter from their Catholic Majesties Ferdinand and Isabela in November, 1511, four centuries ago, and at that time it was located to the south of San Juan Harbor.

San Juan has since it was founded up to the end of the Spanish régime been the residence of the Governor General, and was subsequently made the seat of the present Government by the Act of the United States Congress of April 12, 1900. The account of the foundation and development of San Juan, treated at length elsewhere in this publication, is full of interest in connection with Spanish colonization in the West Indies, and particularly on account of its relation to coincident events in the civilization of the Western Hemisphere.

The island on which the city of San Juan is located is separated from the mainland by the San Antonio channel, connecting the ocean with the bay. The island is a little more than 2½ miles long and from one-fourth to one-half mile in width, terminating at the western end in a precipitous bluff some 100 feet high overlooking the entrance to the harbor. On this bluff is located Morro Castle, the ancient Spanish fortification which formerly defended the port. Other fortifications extend eastward along the ocean front nearly a mile, as well as for some distance along the bay front, and form a part of the walls and other defensive works which, with their moats and gates, made San Juan a typical walled city. Although these enormous masses of masonry have been standing over two centuries and a half, they are in an excellent state of preservation, and in comparison with the modern buildings, electric street cars and other signs of present-day development around them, furnish an impressive contrast between the past and the present. That portion of the city within the walls is laid off in rectangular blocks, the streets running parallel with and at right angles to the length of the island on which it is located. buildings are solidly and compactly constructed of masonry, most of them built after the Spanish style of architecture. Among these buildings, however, are many of more modern design and others in course of construction. The growth of the city has caused its extension along the Island of San Juan and over to the mainland, following the coastline for a short distance, but especially along the route of the famous Military Road, leading out of San Juan to the southern part of the The principal outlying districts of San Juan along this highway are Puerta de Tierra and Santurce. The latter has during the past few years been rapidly enlarged by the construction of many attractive residences.





Aside from being the seat of Government, San Juan is one of the most progressive cities in Porto Rico, and as the prosperity of the Island increases promises to rival any of the other cities in the West Indies in commercial and industrial activities. Its excellent harbor and waterfront, which are constantly being improved, afford shipping facilities for the largest sea-going vessels that visit the Island. The excellent shipping accommodations and the inland transportation facilities afforded by the steam and electric railways and the highways make it one of the principal ports for shipment of the Island's products, as well as a place from which merchandise from the exterior is distributed to inland points.

The headquarters of the United States Army in Porto Rico are maintained at San Juan. The United States Navy also maintains within the city a wireless telegraph station. The Federal Government maintains as well a quarantine service, with a well-equipped quarantine station; immigration service, weather bureau service, postal service, and the United States Civil Service Commission is also represented.

Among the many public service institutions in the city are an electric lighting and power system, electric street railway line, local and long distance telephone systems and telegraph lines connecting it with other places in the Island. It is the terminus of the American Railroad. It has two ice plants, a brewery, a number of banking institutions, eigar factories, large wholesale houses, as well as many progressive and up-to-date retail stores. It has many churches, and its schools, both public and private, compare favorably with any of those in cities on the mainland of the United States.

San Lorenzo has a population of 14,278, and San Lorenzo. its wealth is assessed at \$867,572. It is located in the eastern part of the Island. The surrounding country being mountainous, very little of it is adapted to the raising of sugar-cane, which is the principal industry of most of the other sections of the Island. Coffee, tobacco and cattle are, however, raised to a considerable extent. Deposits of iron and sulphate of copper have been found in the district. The municipality has 4 graded and 10 rural schools, and maintains a school library and a band. It is reached by the highway branching off the main Military Road at Caguas.

San Sebastián has 18,904 inhabitants and in 1911 the real and personal property of the district was assessed at \$1,060,178. The town was founded in 1752 in the northwestern part of the Island, on the road leading from Lares to Aguadilla. The district being of a mountainous character, coffee is its chief product, although fruits and some sugar-cane are raised. It has 28 public schools, 8 of which are located in the rural districts.

Although the growth of this town has been retarded for the reason that it has been twice burned, it is nevertheless recovering from these setbacks, and a number of new undertakings are projected in the vicinity, among which is the construction of a large sugar mill; all of which will restore this municipality to a place among the leading interior towns of the Island.

The population of Santa Isabel is 6,959. Its Santa Isabel. local wealth is assessed at \$2,265,366. It is located on the southern coast of the Island, on the Ponce and Guayama Railroad, as well as on the Ponce-Guayama highway, between Salinas and Ponce, in one of the richest sugargrowing sections of the Island. There are two large sugar mills in the town, and a great number of the residents of the district are employed in these and in the surrounding sugar plantations. The district was formerly devoted largely to cattle raising, which is giving way to some extent to the sugar industry, which from year to year places more land formerly used for grazing under cultivation. The district embraced is within the southern irrigation project, and it also obtains water from the Coamo, Descalabrado and Jueyes Rivers.

The beach adjacent to Santa Isabel is excellent for bathing, and this and the agreeable climate attract many people during the summer months from Ponce, Juana Díaz and other nearby places.

There are one graded and seven rural schools within the municipality, four of which are housed in modern concrete buildings.

Toa Alta has 9,127 inhabitants, and its local Toa Alta. wealth was assessed in 1911 at \$590,948. It was founded in 1751, and is located in the northern part of the Island, on the banks of the Toa River. Communication is afforded by means of highways with Toa Baja, Dorado, Corozal and Bayamón. The surrounding territory is devoted to the cultivation of coffee, to lacco and sugar-cane, and cattle

raising. The area under cultivation for sugar-cane is being rapidly extended.

Toa Baja has a population of 6,254, and its local Toa Baja. wealth was assessed in 1911 at \$1,663,390. It is located north of Toa Alta, on the Toa River, and on the line of the American Railroad. The chief industry of the district is the raising of sugar-cane, although cattle raising and dairying are carried on to a considerable extent.

Trujillo Alto has 6,345 inhabitants, and its Trujillo Alto. local wealth was in 1911 assessed at \$821,495. It is about seven miles southeast of Río Piedras, and is reached by a branch of the highway from the Río Piedras-Carolina Road. It is on the Caguas tramway line. The surrounding country is devoted principally to the raising of sugar-cane, most of which is sent to the sugar mills near Carolina.

Among the natural curiosities in the vicinity are a number of limestone caves which contain large deposits of bat guano, and by reason of relics that have been found therein are supposed to have been the dwellings of the original Indians. There are also some more or less extensive marble quarries, from which marble has been obtained for use in construction work in San Juan and other neighboring cities.

A considerable amount of land in the district has during recent years been placed under cultivation for citrus fruits and pineapple plantations, to which purpose the soil seems to be peculiarly well adapted.

The municipality maintains three graded schools and seven rural schools. Two of the buildings used by these schools are owned by the local school board.

Utuado has 30,775 inhabitants, and its local wealth Utuado. was assessed in 1911 at \$2,188,756. It is located west of the center of the Island, on the highway leading from Arecibo south to Adjuntas and Ponce. It was founded in 1739. The district is a mountainous one, and is interesting on account of the many caves and other natural formations therein. In many of these caves can be found relics of the early Indians. The principal industry of the district is the raising of coffee. Sugar-cane is also extensively grown, and its manufacture will soon be one of the important local industries, as a large sugar mill, with a capacity of some 300 tons daily, is now being erected.

The municipality maintains a hospital and a public library. The municipal offices are installed in a good building, and the town is lighted by electricity and is supplied with water by means of an excellent aqueduct. The municipality maintains 51 schools, 35 of which are scattered throughout the rural districts.

Vega Alta is located on a railway which connects with the line of the American Railroad Company about 35 kilometers from San Juan, in the northern portion of the Island, and is also connected with other municipalities by means of an excellent highway. It has 8,134 inhabitants, and its real and personal property was assessed in 1911 at \$1,008,444. The surrounding territory is devoted to the cultivation of tobacco, fruits, coffee, and sugarcane, the latter being sent to a large sugar mill located in the district. The municipality maintains four graded and seven rural schools, as well as a school library.

Vega Baja is located a short distance to the west of Vega Alta, on the main line of the Amer-Vega Baja. ican Railroad Company and the Bayamón and It was founded in 1776. Its present popu-Manatí highway. lation is 12,831, while its municipal wealth was assessed in 1911 at \$1,918,276. Some tobacco and coffee are raised in the vicinity, although the surrounding territory is principally devoted to the raising of fruit and sugar-cane. The Cibuco and India rivers flow through the district. There are in the municipality both Catholic and Protestant churches, a school library, and 20 public schools, and the community has recently completed an excellent plaza, or public park. Near the town is a cave of considerable interest for the reason that on the walls may be seen drawings and inscriptions supposed to have been placed there by the original Indian inhabitants.

Vieques is a small island situated a short disvieques. tance off the east coast, but within territorial jurisdiction of the Island of Porto Rico. It is embraced within the municipal jurisdiction of the town known as Isabela II. It has a population of 10,425, and its legal wealth was assessed in 1911 at \$2,820,444. The island is said to have been first settled in 1524, when it was visited by Don Cristóbal de Mendoza, at that time the Spanish Governor of Porto Rico. The country is devoted principally to the raising of sugar-cane, which is ground in four large sugar mills, and to the grazing of cattle. There are within the municipality three



''Views of land and water * * * '' ''And the promise of unseen beauties in the interior.''

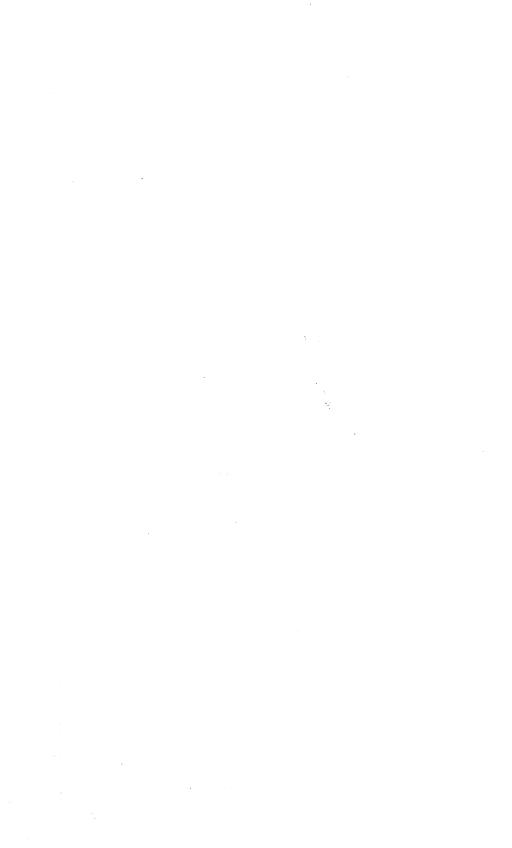


ું વ churches, six schools, a building occupied by the municipal authorities, an old Spanish fort now used as a prison, and the United States Government maintains there a magnetic observatory. The island is about 17½ miles long and 2½ miles wide, or about 45 square miles in area.

Yabucoa has 17,338 inhabitants. Its local wealth Yabucoa. was assessed at \$2,116,876. It was founded near the coast at the southeastern extremity of the Island in 1792. Communication with other municipalities along the coast and to the north and south is afforded by the main highway that passes around the eastern extremity of the Island. The district is crossed by the Guayanés, Limones, and the Ingenio rivers. The climate is healthful, and located, as it is, near the coast, the temperature as a rule is very agreeable. The principal products of the district are sugar, rum, cattle, and cheese. A large sugar central within the district also contributes much to its industrial activity. The municipality maintains eight public schools.

Yauco has a population, according to the census of 1910, of 31,504; while its local wealth was assessed Yauco. in 1911 at \$5,829,754. It is located in the southwestern part of the Island, on the line of the American Railroad, and the main highway between San Germán and Ponce. was founded in 1756. Its principal sources of wealth are the growing of sugar-cane and coffee. About one-seventh of the total area of the district is devoted to the cultivation of coffee. especially in the highlands, while the majority of the coastal plain is devoted to the raising of sugar-cane. Coffee produced in this district compares favorably with that from any other district in the Island. The sugar-cane raised in the locality is ground in a large sugar mill known as the "Guánica Centrale." one of the most important in the Island, its product being shipped from the nearby port of Guánica. This port, located about seven miles from Yauco, is notable as having been the landing place of the American troops, under command of General Miles, on July 25, 1898. The Government has set aside a tract of land near Guánica for the purpose of experimenting in the cultivation of fibrous plants. In addition to the two principal products, sugar-cane and coffee, the surrounding territory also produces some fruit and tobacco, as well as certain cabinet woods. The municipality of Yauco maintains 39 public schools. It has just completed a first-class reinforced concrete school building with modern accommodations and equipment. There are also within the municipal limits a new hospital, as well as Catholic and Protestant churches. There are two public parks, and a picturesque avenue leading to the railroad station, on which are located the Masonic Temple, the new school building, and the electric light and power plant.

Entrance to the harbor at San Juan.



CHAPTER VI.

SAN JUAN AND THE ISLAND OF PORTO RICO FROM THE TOURIST'S STANDPOINT.

The First Settlement, Points of Interest About San Juan and Trips Across the Island.

O the traveler seeking the quaint and picturesque and to whom the romance of four centuries past appeals, San Juan and other cities in Porto Rico are as alluring and far more satisfying than were the prospects of adventure and unlimited wealth to Columbus and his followers, who did not find the gold they sought, but inaugurated the development of a territory that has increased in value throughout the centuries that followed.

When St. Augustine, Fla., the Spanish settlement on the mainland that has for years lured many visitors from other parts of the United States, was first settled, the city of San Juan, then known as the "City of Puerto Rico," had passed through half a century of its history, and its inhabitants had erected buildings and fortifications that are still standing and some of them are in use to-day. The first hundred years of its existence had passed ere Jamestown came into being and Hudson sailed up the river which bears has name. Its second century had commenced when the Dutch colonized New Amsterdam and the Pilgrim fathers disembarked from the Mayflower. Closely associated with its early history are the names of Juan Ponce de León, Nicolás de Ovando, Diego Columbus, Drake, Hawkins, Lord Cumberland, Salazar, Sotomayor, and others whose struggles with rebellious Indians, marauding Caribs, pirates and buccaneers in their attacks on the primitive city and other more defenseless settlements furnish a story replete with adventure, warfare and romance.

FIRST SETTLEMENT.

The city owes its foundation to the intrepid explorer and colonizer, Juan Ponce de León, who in his futile quest for the fountain of youth was later the discoverer of Florida. Ponce de León landed August 12, 1508, on the western coast of the

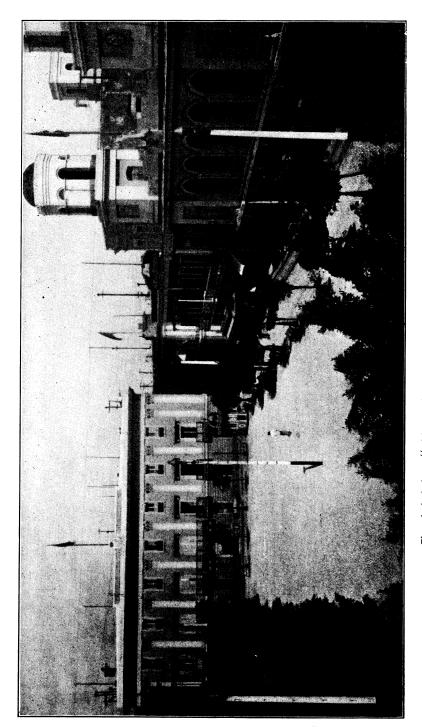
Island of Porto Rico, then called by the Indians the Island of "Boringuen," and under the friendly guidance of the native chieftains journeved toward the east in search of gold-bearing river sands. During the course of this expedition he first saw the bay on which San Juan is located, and called it "Puerto Rico." or Rich Port. The reason for this name was probably more the promise of wealth held out to the explorers by the beauty of the bay and surrounding country than the realization of their hope to find the gold of which they were in search. Leaving behind him several of his companions, De León returned to Santo Domingo, and after reporting his discoveries to the Governor, Nicolás de Ovando, and recruiting additional men for the expedition, returned to make a settlement. first community, known as "Caparra," appears to have been established a short distance inland, south of the bay. The site chosen, surrounded by low hills and swampy land, was accessible only through a narrow pass, and was probably selected with a view to the improbability of its discovery by enemies approaching it from the sea. The settlers erected buildings and a small stone fort and remained until a few years later, when they moved their goods and chattels to the present site of the city of San Juan.

Such was the beginning of the capital city of the Island of Porto Rico. With their skill in masonry construction the colonists erected substantial buildings and forts, many of which are still in a good state of preservation and are among the oldest standing structures raised by Europeans in the New World.

THE CAPITAL CITY.

San Juan of to-day is a typical Spanish city. The streets are narrow, but paved and clean, and as a rule all lead within a short distance to some point on the water front. The solid masonry houses, tinted with their soft and picturesque colors, are packed together within the massive gray walls which for years have protected them. They are flat-roofed, have many balconies, high windows and typical cool and shaded courtyards.

Fortunate are they whose first sight of the ancient city is from a vessel's deck in the early morning, when against a gorgeous tropical sunrise, the ultramarine blue of the ocean, the gray and moss-covered walls, the white parapets of Casa



The principal plaza, "without which no community of Spanish origin is complete."

Blanca and the many-tinted dwellings rising terrace-like from the bay to the heights overlooking the sea form a riot of colors. On the other side of the harbor vivid green cane fields interspersed with dark-tinted palms, the soft colors of an occasional settlement, and in the background range upon range of hills still enveloped in the purple shadows of the dawn, complete the beauty of the scene.

The sound of the sunrise gun booms forth from the grim and battle-scarred ramparts of old Morro as the ship approaches the narrow entrance to the landlocked harbor. Passing the gray and ancient city wall, its heights crowned by the barracks, Casa Blanca, the residence of the military commander, and Santa Catalina Palace, now the headquarters of the civil administration and the residence of the Governor of the Island, the vessel threads its way between buoys marking the channel. Across the harbor the quaint fishing village of Palo Seco is seen amidst a grove of cocoanuts, and farther along the beach Cataño, another small village, the delicately tinted houses from a distance adding to the charm of the picture.

IN THE HARBOR.

On the left, beyond the Palace of Santa Catalina—commonly known as the "Fortaleza"—the shore line suddenly drops, and at a lower level, on land reclaimed from the swamps by some enterprising Spanish governor, is situated an outer ward of the city. Passing this point the ship is in the inner bay and close to its pier. Lateen-rigged bumboats glide back and forth, coastwise schooners drift out to eatch the breeze which is to start them on their journeys, busy little passenger launches toss in the wake of the steamer, and the pilot of the ferry awaits the pleasure of the larger craft before resuming his journey. On the water front are found commodious piers and docks, and nearby a small park, across which many people may be seen hastening to the dock. The ship pulls up to the pier and greetings arise from the waiting crowd, which has been notified through the wireless station of the anticipated time of landing. Hotel runners urge the claims of the "best" hostelry, and goodnatured dusky porters are ready to seize baggage in anticipation of a dime or two.

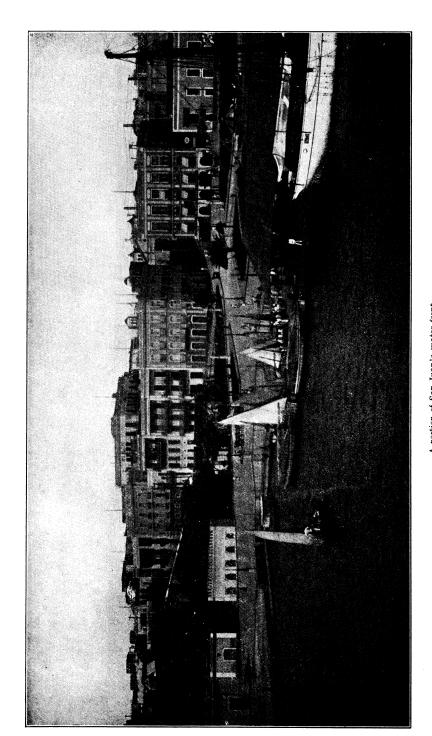
A POPULAR MEETING POINT.

Leaving the pier, one of the first signs of modern times among the ancient landmarks that have up to now held the eye is an electric street railway which enters the city at this point. From here the line passes the Church of Santa Ana, erected some time prior to 1647, and within a few squares turns around the Plaza Principal, an open park, floored with cement and surrounded by trees, without which no community of Spanish origin is complete. This square is the central rallying point for tourists as well as residents, and near at hand are located shops where one may purchase native curios, finely woven hats, canes of tropical woods, photographic supplies, postal cards, or modern articles of necessity. Here may also be found open carriages drawn by the wiry horses of the country for transportation about the city, as well as automobile agencies with facilities for longer trips to other parts of the Island.

Weekly band concerts are given on this plaza Sunday evenings, on which occasions rows of rocking chairs are set out to be rented. At these times the plaza is thronged with people, some of whom sit at ease in the chairs and discuss the others who promenade in a well-defined orbit about the open space. The concert is invariably brought to a close by the strains of the "Star-Spangled Banner," which brings to their feet, with uncovered head, every loyal American, whether a native of Porto Rico or the mainland.

AROUND THE PLAZA.

The center of the row of buildings on the north side of the plaza is occupied by the City Hall, or Alcaldía, with its twin towers, in which is hung a huge bell which has boomed out the hour and the half-hour since 1819. The building was erected in 1799. In this building the city council, the mayor and other officials of the various municipal departments have their quarters. The high arcade over the sidewalk, supported by huge columns, affords refuge to the frequenters of the plaza during sudden showers, and the balcony is often used on feast days as an official reviewing stand. During Carnival Week and on other important occasions the City Hall and its towers, and other buildings surrounding the plaza are decorated, and at night brilliantly illuminated with electric lights. At the western end of the plaza and extending across its width stands the



A portion of San Juan's water front.



Intendencia Building, erected in 1851, in which are housed several branches of the Insular Government. On the corner opposite the Intendencia is a building known as the "Diputación Provincial," built in 1856 and used for a number of years by departments of the Spanish Government. The second floor is now occupied by the halls of the Legislative Assembly.

Above the stores on the south side of the plaza are the rooms of the Casino Español, or Spanish Club, which has the largest membership of any purely social organization on the The membership is not, however, as the name would indicate, confined to Spaniards, but is cosmopolitan, as are, in truth, most of the organizations of a similar nature in the Island. The Ateneo Puertorriqueño (Porto Rican Atheneum), the focus of Porto Rican literary and artistic life, occupies the second floor of the building adjoining the Casino. Nearby are the quarters of the French Club, where members of the French colony congregate. The headquarters of the Porto Rico Association are also found adjoining the plaza. This association has allied with it most of the trade and business organizations of the Island, including the Coffee Growers' Association, the Porto Rico Fruit Exchange, and the Horticultural Society. No tourist or visitor should omit a call at the rooms of the association, where information can be obtained regarding the country, its products and possibilities. Here letters may be written or appointments made to meet friends, and samples of the fruits, cigars, coffee, and other products of the Island seen. It is primarily a bureau for the dissemination of information concerning Porto Rico, and every attention in this behalf is extended to inquirers.

Above the headquarters of the Porto Rico Association and Bureau of Information, are the rooms of the City Club, an association of business men and government officials and employes, in connection with which is operated a first-class dining room for members and their guests.

One of the first things that will be noted by a visitor is the compact manner in which the city is built and the narrowness of its streets. This latter peculiarity has been attributed to a desire on the part of the early settlers to insure shade on the streets at almost any hour of the day, but is more probably due to the fact that in planning the city the streets were laid out for the accommodation of those who rode on horses or in

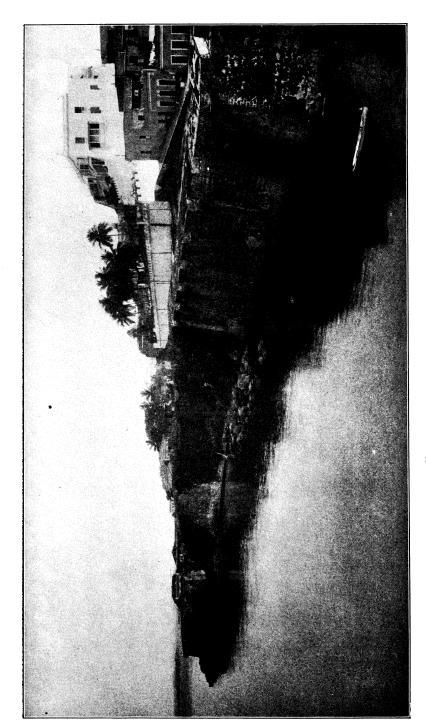
carriages; hence, in later years, when walking became more popular and sidewalks were built, the narrowness of the thoroughfares was emphasized.

THE CITY'S TOPOGRAPHY.

Within the city proper there are six streets running east and west and seven north and south. Their names are indicated by small marble slabs here and there, set into the walls of the corner buildings. There is little danger of becoming confused in wandering about, as the distances are short, and the stranger who has lost his way will almost invariably bring up at the central plaza or at some point on the water front, from whence a fresh start can be made. The narrowness of the streets and the large amount of traffic through the city has led to the designation of certain thoroughfares for traffic in one direction and others for traffic in the opposite direction, as shown by signs on the corners. Starting from the water front, the names of the streets running east and west are La Marina, Recinto del Sur, Tetuan, Allen (commonly known as Fortaleza, for the reason that it leads to the Government House, or Fortaleza), San Francisco (along the north side of the plaza), Luna, Sol, and San Sebastián streets. Going west from the end of the plaza the streets running north and south are San José, Santo Cristo, and Recinto del Oeste. From the other end of the plaza. toward the east, the names of the streets in order are Plaza de la Cruz, San Justo, Tanca, and O'Donnell, the latter running along the side of another open square known as the Plaza Colón.

THE CATHEDRAL.

San Juan abounds in ancient forts and buildings and other interesting sights. As the city in the beginning was naturally grouped about the first fort erected, the older buildings are found in the western portion, from El Morro through to the city wall overlooking the bay. The plaza being the natural starting point, sight-seeing tours usually commence at that place. A short distance from the plaza, up San José Street, is the Cathedral. It is open most of the day and visitors may enter at any time. As compared with European cathedrals, it is unimpressive in size or architecture, but probably one of the oldest religious edifices in the New World. When the colonists of Caparra removed the city to the present site, in 1521, one



Casa Blanca, "with its waving palms and traditionally white walls."

of their first undertakings was the erection of a church. The first edifice was undoubtedly humble in size, but was replaced by a stone structure, the basis of the present building, about 1549.

WHERE PONCE DE LEÓN SLEEPS.

In this cathedral are deposited the ashes of Juan Ponce de León, who died in Havana in 1521. In 1559 his remains were brought to Porto Rico by his grandson and deposited in the church of St. Tomás Aquino, now the Church of San José. Here they rested until 1863, when they were disinterred and held in a temporary crypt until August 12, 1908, the 400th anniversary of his landing in Porto Rico, and transferred with great civil and religious ceremony to the present resting place in the cathedral. In a glass case is a wax effigy of a Roman soldier, known as the "petrified man," around which local tradition has weven various romantic tales. The popular account is that years ago a soldier of the garrison, as a result of insubordination, was ordered shot. As the soldiers in the firing squad were about to discharge their weapons, it is said that he dramatically appealed to the Powers above to save him, claiming that his sentence was the result of the personal antagonism of his commander, whom he threatened to meet in the other world, where justice would be obtained. It is said that the soldier's claim was confirmed by the fact that after several years his body showed no signs of decomposition, and that in recognition of his martyrdom he was elevated to sainthood as St. Pío. Another account is that a soldier protested against the use of mouldy bread during mass and struck the officiating priest, suffering death for his act. None of the current versions have attempted to account for the Roman dress and arms and other small inconsistencies. The Ecclesiastical Bulletin of the Catholic Church, however, has printed the authentic story. effigy contains a few bones and a vial of blood, secured from the Catacombs of Rome by a former bishop of the church, and are venerated as those of Saint Pío, the name of the soldier-martyr, taken from an inscription found in the place from which the relics were obtained.

Facing the Cathedral, and with a small park in front, is the Episcopal Church of St. John. This is a modern building and is the cathedral of the Episcopalians in Porto Rico. By following the street on the north side of St. John's and turning the

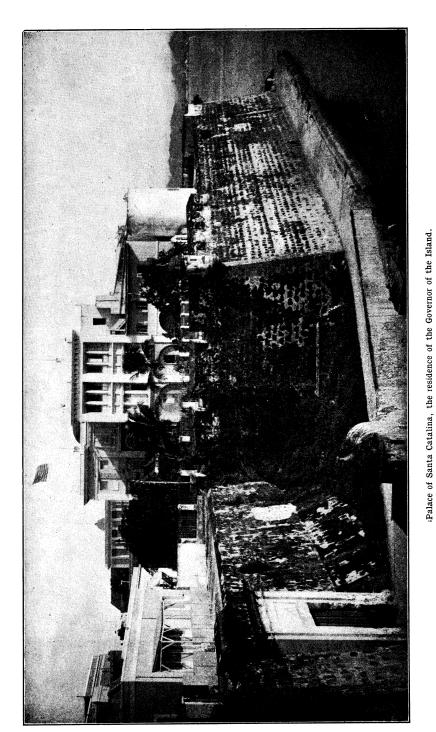
corner to the right, going up the stone stairs, the entrance to Casa Blanca (White House), now occupied by the commanding officer of the military forces in Porto Rico, is reached. This is one of the oldest buildings in the capital. It has often been referred to as the residence of Juan Ponce de León, but this supposition is in error, as the building was not erected until 1525, several years after the death of the discoverer in Havana. Juan Proche, who fell heir to many of the rights and privileges of Ponce de León, after the death of Ponce's son Luís, assumed the name of Ponce de León, which fact gave rise to some confusion.

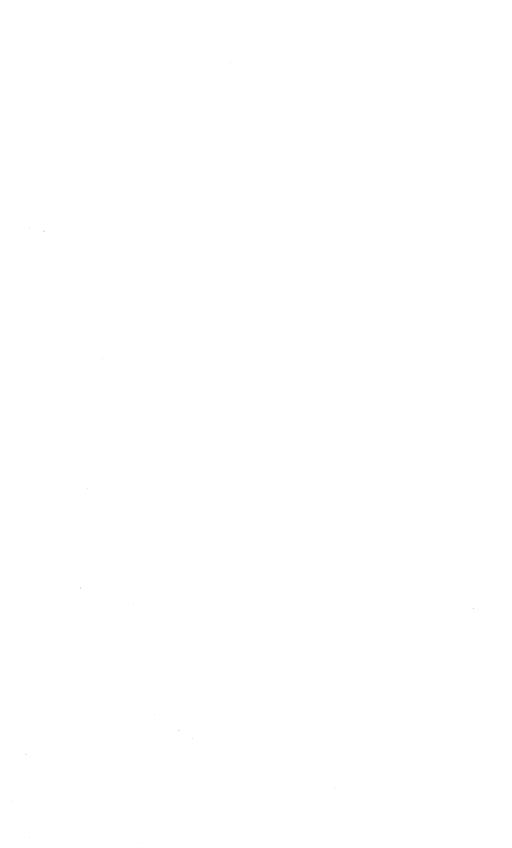
CASA BLANCA.

Casa Blanca overlooks the city wall, which extends along the bay front, in some places 30 feet in thickness. In 1779 the Government purchased the building, and it has ever since been used by Spanish and American military authorities. picturesque old place, with its waving palms and traditionally white walls. Fortunate are those who, enjoying the hospitality of the military commander at some evening reception, have the privilege of walking through the ancient gardens amid the tropical foliage when the bright lights and possibly the softer rays of the moon emphasize the picturesqueness of the white parapeted walls, and, with the shadows cast by the graceful palm trees and in the distance the glimmering lights of vessels in the harbor, all contribute to a charm which leads the imagination to fairyland, or the thoughts back to a stage setting that one has seen, with castle walls and towers as the background, for some romantic play.

OLD SAN JUAN GATE.

By descending the hill from Casa Blanca and passing up Recinto Oeste Street, behind the city wall, the old San Juan gate is reached. This is the only remaining gate in the great inclosure that once encircled the city. The gate opens upon what was formerly the busiest landing place of the port, most of the boats being laden and despatched from here under the protection of the guns of Santa Elena, a bastion which formerly commanded the outer bay. The enormous wooden doors still hang in a good state of preservation, and easily swing to and fro on their pivot hinges. An inscription, "Anno Domini 1749."





testifies to the fact that the huge brass-headed nails with which the massive portals are studded have served their purpose well.

THE FORTALEZA.

Farther on, where Recinto Oeste Street joins with Allen Street, is the residence of the Governor of the Island, known as the Fortaleza, the Palace of Santa Catalina, or the Government The name Forteleza has its origin in the use for which the first or older part of the building was constructed, that of a fort. In later years, frequent additions making the structure more pretentious and its use as the residence of the successive Governors of the Island, led to its being called after the name of its patron saint, "The Palace of Santa Catalina." Since American occupation of the Island, following the custom observed in English colonies, it has often been referred to as Government House. It was the first fort erected in San Juan in answer to the insistent demands of the colonists for protection against the frequent attacks of Indians and pirates. Work on the building was commenced in 1533. During its construction much criticism arose as to the strategical value of its location. Oveido, in 1537, in writing about it, referred to the site as one that none but the blind would have chosen for a fort. as an enemy could enter the harbor and approach without being seen from its walls. In 1639 the building was utilized by the Spanish Governor General La Mota as his residence, and in 1822, as a result of a conflict between the civil and military authorities, a Royal Decree was issued designating the building as the residence of the captains general of the Island.

The building is massive and impressive, both inside and out. Its vaults, used at times as temporary places of safety for treasure en route from Mexico to Spain, its *patio* and beautiful gardens, the main stairway with its dome ornamented with paintings years ago, but still in an excellent state of preservation, well repay a visit. It is said that tunnels at one time connected this building with El Morro and other nearby fortifications, and in view of the fact that portions of long, connecting tunnels leading to various places from some of the other forts are still to be seen, this is not at all improbable.

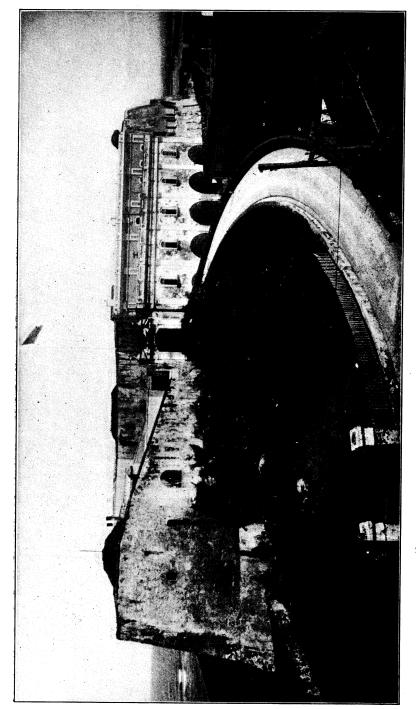
SANTA CATALINA CHAPEL.

On the other side of the Fortaleza and farther along the sea wall, is the Chapel of Santa Catalina, built in 1639 to replace

another chapel of that name formerly located outside the city wall. A short distance from the Fortaleza, on Allen Street, is the building known as the Pink Palace, so called from its traditional color, formerly occupied by the Lieutenant Governor and now utilized for Government offices. Passing up Allen Street from the Pink Palace and turning the first corner to the right, a small chapel known as the Capilla de Santo Cristo, is reached. This chapel was erected in 1753. Years ago horse races were a prominent feature of feast-day celebration. night before men and women came in from the surrounding country to take part in the festivities. By noon the races started, and great honors were conferred upon the winners. Santo Cristo Street served as one of the courses over which the races were run. According to tradition, a youth of good family, mounted on a spirited steed, lost control of his animal, which dashed down the street and over the wall, and with his rider, met death a hundred feet below. His mother caused this chapel to be erected at the end of the street that others might not share his fate, and in the chapel mass is said each Santiago Day, the anniversary of the tragedy.

THE HISTORIC FORTS.

The defensive works, San Cristóbal and El Morro, crown the heights along the sea coast to the north of the city. Fort San Cristóbal is in reality a series of forts and batteries— Cristóbal, Escambrón, and Princesa. Formerly the city wall extended from the eastern end of this fort across the island on which the city of San Juan is located, and was pierced by a gate known as Puerta de Tierra, from which the city ward in that vicinity derives its name. Fort San Cristóbal was erected in 1731 and partly reconstructed in 1788. Its massive works are pronounced by competent judges to be strongly built and stategically located. The impression gained from the exterior, however, of the massiveness of the fortifications is only increased by an inspection of its walls, dungeons, passageways and moats from within. The various sections of the fort are connected by means of tunnels, and communication was formerly afforded by the same means with other portions of the defensive works of the city. Jutting out from the walls of San Cristóbal over the ocean is a masonry sentry box, now falling into decay, which has been known for many years as the



Fort San Cristobal. — "The impression gained from the exterior of the massiveness of the fortification is only increased by an inspection of its walls, dungeous, passageways and moats from within."



"haunted sentry box." Although built to afford protection to sentries on stormy nights, tradition has it that His Satanic Majesty at times spirited away guards on duty at this post, leaving behind as evidence of what had occurred nothing but a sulphurous odor. The superstitious dread of the soldiers of the garrison resulting from this tradition was such that the Spanish authorities are said to have at one time walled up the sentry box. With due respect to the tradition, another explanation of the sentry's disappearance, as given by a modern writer, may possibly be more acceptable to the skeptic. the story goes, the sentry, chilled to the marrow by the winds of a wild, stormy night, was overcome with an irresistible desire for something to warm him up. Leaving the sentry box, he made his way to a nearby tavern, outside the walls, whose enticing lights he could see from his post of duty. The first glassled to others and the time passed so swiftly that he was not aware of its flight until the sound of a bugle announced the arrival of the relief at his station. Knowing that death was the penalty for deserting a post, he quickly made his way to the harbor and embarked on a schooner then weighing anchor for a foreign port, little knowing that his mysterious disappearance and an imaginary odor of sulphur was to make him the traditional victim in a tragedy in which Satan played a leading part. Discolored and crumbling with age, overhanging the buffeting waves and exposed to the blasts of the winds, a more inviting place for supernatural visitations than this old sentry box could not be imagined.

IN THE MARKET PLACE.

A visit to the market place, on the heights midway between San Cristóbal and El Morro, should be made in the early morning. All night the hardy little pack horses have been journeying in from the surrounding country, frequently with the rider fast asleep as his steed jogs along the well-known road. Hung from the animal's back on either side are baskets containing vegetables, fruits, chickens and other produce to supply the tables of the dwellers of the city. Not unfrequently the squealing of a suckling pig, destined for a toothsome roast, is heard protesting against his confined quarters. The great square of the market place at sunrise, with its vendors, and buyers striving to outbargain one another, is an animated scene. The "one-price" system is tabooed, and a vendor would be grieved if

deprived of the pleasure of bickering and bargaining and pitting his shrewdness against that of the purchaser by acceptance of his goods at the first price offered. Under the shelter of the arcade around the four sides of the open square are the meat stalls, and the fish stands loaded down with the varied offerings of the sea, and stands at which are displayed dry goods, shoes, dress material and trinkets to attract the country people. The market place was constructed about the year 1855, and is typical of others found in all Spanish-speaking countries in the Tropics. Strangers are impressed by the variety of unfamiliar fruits and vegetables, the names of which would be as confusing to them as their appearance, so that satisfactory information concerning them can only be gained by trial.

THE OLD CEMETERY.

Back of the market place and nearer to the sea wall, reached by a pathway leading down a declivity and through a tunnel, is the old cemetery. In contrast with the restless surf which surges against its outer wall, the location of this "God's Acre" impresses one with a sense of peace and restfulness. In the center is a chapel, in which services are held. To the left is a long arcade containing niches, which are rented by the city for a certain number of years and in which are placed the remains of members of those families that are able to pay the rental. Many works of art may be seen here in the form of beautiful monuments and mausoleums.

BALLAJÁ BARRACKS.

On the heights above the cemetery are the immense Ballajá Barracks, erected in 1860, and so commodious that in them two regiments of troops may be easily sheltered. Of imposing dimensions, built in the form of a rectangle around an open court sufficiently spacious for drilling troops, it is one of the largest barrack buildings used by the United States Army.

Across the street and adjoining the barracks is a large building used as an insane asylum and known as the "Beneficencia." The lower portion of the building was completed in 1847, and the second story added in 1897. It was formerly used for an industrial training school, and later for a graded and high school. Across the parade ground and on the heights of the extreme point of land which forms the north side of the entrance

to the bay is Fort El Morro, the ancient structure which has withstood the assaults of hostile forces since the erection of the original structure in 1584. Various attempts to take the city resulted in the extension of the fort and walls from time to time until the completion of the existing defensive works. With its ancient moats and dungeons, it is a perfect example of old-time fortifications, and against the arms of the period was considered impregnable. In fact, the modern ships of Evans and Sampson did comparatively little damage to the massive walls in a four-hour bombardment, although the marks of their shells are still visible. It now serves as a garrison for a part of the Porto Rico Regiment.

PONCE DE LEÓN'S STATUE.

In the center of the Plaza of San José, on the heights not far from the barracks stands a statue of Juan Ponce de León, cast from cannon captured from the English invaders of 1797. Fronting the plaza is the Church of San José, erected between the years 1532 and 1535. In this church the remains of Juan Ponce de León rested from 1559 to 1863. The building was formerly known as the Church of San Tomás de Aquino. Adjoining the church is an ancient building originally used as the monastery of the Dominican Friars, the structure dating back to the year 1532. A portion of the building now accommodates the Supreme Court of Porto Rico and the District Court of San Juan. In the patio may be seen the old wells which formerly furnished water for the friars.

Descending San José street and turning one square to the right the Bishop's Palace, the residence of the head of the Catholic Church in Porto Rico, is reached. This consists of a massive building and cloister dating back to 1738.

THE MARCH OF PROGRESS.

A custom that will be noted by the visitor in many parts of the city is that of utilizing the ground floors of buildings for offices, stores and other business purposes, while the floor above will be well and even luxuriously furnished with all modern conveniences of life for use as family residences. In recent years, however, land values have so increased in the city proper and the demand of the business section so extended that many of the merchants who formerly lived over their places of busi-

ness have erected fine residences in the suburban districts. At the present time the process of reconstruction in San Juan is apparent from many modern buildings already erected and others in process of erection or alteration. Formerly show windows in the stores were unknown, but now many firms display their wares in a tempting manner behind plate-glass windows.

ACROSS THE BAY.

Many other things and places of interest in and about San Juan, too numerous to mention in any guidebook, will appeal to and occupy the attention of the visitor. When those are exhausted a trip to Bayamón or Cataño, just across the bay from San Juan, may be made by ferry or by means of one of the numerous launches or sailboats which ply from shore to Landing at Cataño, on the opposite side, one finds a village composed of small frame houses. A diminutive locomotive and train afford transportation from the landing place to Bayamón. The trip is not a long one, and the town is soon reached. Bayamón was settled in 1772, and is interesting principally as a typical interior town which can be easily and quickly reached by those who have not the time to make longer trips to the interior. To those with more time at their disposition, what they have seen in Porto Rico during the first few days, its communities, its views of land and water, the distant mountains and the promise of unseen beauties in the interior, accessible by means of excellent automobile roads, will prove as alluring as were the promises of unknown wealth to the first discoverers. It is highly probable, and it has often occurred, that the casual visitor sees one of the many existing opportunities, and the Island gains another inhabitant.

VIEWING THE ISLAND.

If the visitor has not brought an automobile, as many do, a machine may be obtained from one of the local agencies for trips to the interior. But a few hours are required to travel by automobile from San Juan over the excellent roads to other points. The principal highway, the famous Military Road, runs across the Island from San Juan to Ponce and is the main artery of the general road system, with branches in all directions. This road out of San Juan lies across the comparatively



The royal and cocoanut palm contribute to the beauty and wealth of the island.



flat coastal plain for several miles until the foothills beyond Río Piedras are reached. For some distance after leaving the city proper the road passes through the outlying city wards, Puerta de Tierra and Santurce. The growth of the city, restricted in other directions, has followed the line of this highway, and far out along its course toward Río Piedras are found the residences of San Juan business men. At Río Piedras the highway branches off to the east, passing through Carolina, Río Grande, Fajardo, and along the eastern coast of the Island south to Guayama, and thence to Ponce. The road between Río Piedras and Río Grande also lies through the coastal plain. On either side are many plantations where citrus fruits, pine-This plain between San apples and sugar-cane are raised. Juan and Río Grande, with the exception of three places where it is cut up by large lagoons, presents an area of rich alluvial soil about 100 square miles in extent and of exceptional fertility. South of the plain and always in view from the highway, the foothills rise abruptly in broken spurs to the central mountain range known as the Sierra de Luquillo. From Río Grande the topography becomes gradually more irregular, the extensive valleys and even many of the hillsides being devoted to the growth of sugar-cane. At Fajardo is one of the large sugarproducing plants in which the cane is ground. As the road extends south it approaches nearer to the coast, in some places within but a few feet of the water's edge, crossing the end of the mountain range along the edge of a precipitous bluff that descends abruptly into the sea. Leaving the southern foothills of the range, the road enters another broad coastal plain, but a few feet above sea level, and there is comparatively little variation in altitude in the remainder of the distance to Ponce. This southern plain, averaging about five miles in width, is broken only by low bridges and detached hills, all the level parting valleys being under cultivation, and usually covered with sugar-cane. To the north the mountains of the main sierra rise abruptly in great jagged spurs.

THE MILITARY ROAD.

The main Military Road beyond Río Piedras to Caguas passes through a depression between the western terminus of the Sierra de Luquillo and the northern spurs of the central range, the Cordillera Central. The first divide is crossed at an altitude of but 375 feet, from which there is a slight descent to the broad mountain valley in which the city of Caguas is located. Throughout its entire extent the valley is almost wholly devoted to tobacco plantations. With its green expanse and gentle slopes it is ideally beautiful. It is nearly circular in form, about four miles in diameter, and through it in great serpentine curves wind the Caguitas and Turabo rivers. Leaving Caguas the road passes between, and winds upward around the sides of higher and more rugged mountains to the summit of the main At Las Cruces the divide between the headwaters of the Loiza River to the north and the Plata on the south is crossed at an altitude of 1,300 feet. Thereafter the highway descends abruptly to a plain, about 1,000 feet above sea level, extending to and beyond Cayey. The valley about that city is gently rolling, the country sloping away rather abruptly to the Río Plata on the north, whence it rises rapidly to the higher summits of the divide. The mountains to the south rise abruptly, the sides in some places being almost precipitous, to nearly 2,000 feet, directly over the valley. Beyond Cayey the road lies to the west toward Aibonito, ascending rapidly to within two miles of that place to where the divide is crossed at an altitude of nearly 2,000 feet. From here there is a slight descent to the rolling tableland on which Aibonito is located and beyond it is another ascent to a divide which is crossed at an altitude equal almost to the one just passed, from whence the road drops down within six miles some 1,400 feet.

LOOKING DOWNWARD.

Throughout the whole distance from San Juan to Aibonito the country is picturesque in the extreme. The beautiful and ever-changing views of valley and mountain, every foot of ground either under cultivation or overgrown with tropical vegetation, present a pastoral and peaceful aspect elsewhere seldom seen in mountain regions. Every successive vista seems to rival in magnificence the others that have passed before the view. The mountain scenery about Aibonito is accentuated by the immensity of the slopes. From the higher summits the Atlantic Ocean to the north and the Caribbean Sea to the south are both in plain view, and every detail of the topography for miles in all directions may be seen as though one were viewing a gigantic model map.

"Green expanses of valley and gentle slopes covered with tobacco plants."



REMARKABLE VEGETATION.

As the descent toward the southern plain commences, a marked change in the character of the vegetation is seen. brilliant green foliage, and the damp moss and luxuriant ferns of the humid northern slopes have disappeared, and the valleys. and mountain sides are covered with short grass, not unlike the bunch and buffalo grasses of the Western States, dotted with highly colored growths of acacias, flamboyant and other brilliant flowers. On either side the great mountain masses, covered to the summits with vegetation, rise to sheer heights, or descend so abruptly to the bottom of profound gorges as to be imposing in the extreme. The magnificent Military Road, descending and skirting the southern slopes of the Cordillera Central, winds about the mountain sides in graceful curves between never-. ending rows of flamboyant trees loaded with their fiery-hued blossoms, the grandeur of its course not unlike but on a larger scale than that of a boulevard curving through the beauty of some park of artificial origin, and crosses a plain some five miles in width, where it enters the city of Ponce.

UP AND DOWN TO PONCE.

Another route to Ponce is over the highway branching off from the Military Road in a southerly direction at Cayey. road almost immediately mounts the precipitous slopes overhanging the valley to the south of the city, ascending over a path around the mountain sides, necessarily tortuous to economize grades, to a pass, within a few miles, over a thousand feet above Cayey. During the ascent the view from the road, as it winds along the edges of the bluffs, of Cayey and the valley. covered with the green of tobacco plants and sugar-cane, with occasional vistas of the white highway winding its serpentine course amid tropical verdure, like a satin ribbon binding together some huge bouquet, are beyond comparison. Or at night the lights of the city and surrounding settlements in the valley look like fireflies hundreds of feet below. Passing the divide. the mountain wind sweeping across the summit produces an exhilarating change in temperature and, with the change in the character of the vegetation from the palm trees of the lower slopes to the hardier growths of the higher altitudes, carries the traveler in imagination to some more northern clime.

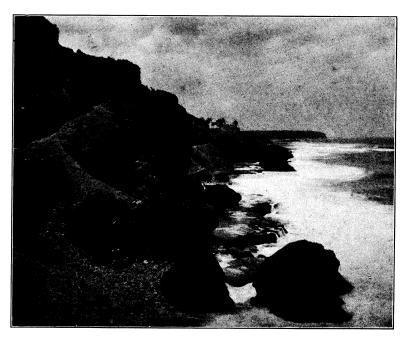
route descends more gradually along the edges of precipitous bluffs, from whence fertile valleys and mountain spurs and occasional vistas of the distant Caribbean may be seen, to another lower pass. Here the southernmost divide is crossed, and rounding one of the many curves, the panorama of the southern plain, level as a floor, covered like a huge checkerboard with numberless acres of growing cane, dotted here and there with sugar mills, its perspective continued in the broad expanse of the Caribbean, comes suddenly into view. From this point the highway ahead as it winds in gradual descent down the mcuntain sides and into the valley to its terminus in Guayama may be seen.

A REMARKABLE PANORAMA.

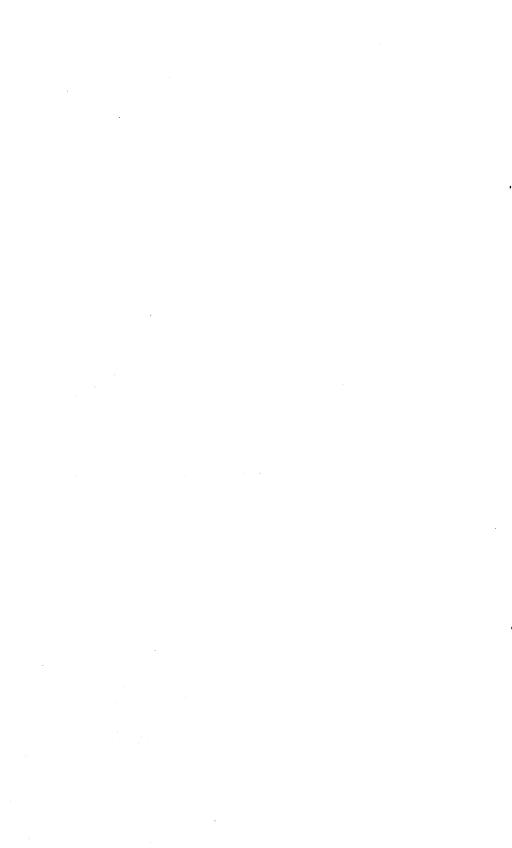
Another magnificent view of the central mountain range is afforded along the route of the highway from Ponce to Adjuntas. For four miles north of Ponce there is a grade of but 50 feet: for the next three or four miles there is an ascent through sloping foothills at the rate of nearly 100 feet to the mile. From here the grade increases until an altitude of 1,700 feet is reached, the abruptness increasing until arrival at the main summit, but 15 miles from Ponce, 2,300 feet above sea level. Adjuntas is beyond the divide on the northern slope at the headwaters of the Arecibo River. The grandeur of the surrounding mountains equals that in any other portion of the main divide. But a few miles to the southwest is Mount El Guillarte. the north are the long radial spurs of the main sierras, which are separated at Utuado by the valley of the Arecibo River; northward another long spur extends to and beyond Lares and San Sebastián to the western end of the Island at Aguada. This spur separates the watersheds of the various rivers which empty into the Atlantic between Arecibo and Aguada, and the headwaters of the Culebrina and Prieto rivers, which flow into the Mona Passage at Aguada and Añasco. western spur, in which are El Guillarte, Las Sillas de Calderón, Tetas de Cerro Gordo and other prominent peaks, separates the waters of the Prieto and Blanco rivers from those of the Guanajibo River. Everywhere throughout this region the highest summits, their slopes, and the bottoms of the deepest valleys afford fertile land for cultivation by the inhabitants, who derive a comfortable living raising coffee, fruit and vegetables.



On the eastern end of the island "as the road extends south it approaches the coast."



On the northwest coast ''a high and rugged spur of mountains maintains its bulk to the water's edge.''



The territory traversed by the main highway from Ponce along the coast, through Yauco and San Germán to Mayagüez, does not differ essentially in appearance from any of the other portions of the Island described. It skirts the slopes of the southwestern spurs of the main sierra. Between the main range and the sea the coastal plain is in some places from 8 to 10 miles in width. From Ponce to Guayanilla the road lies near the coast, thence its course is farther inland until the coast is approached at Mayagüez. It passes through long and fertile valleys, and parallels, from San Germán to Mayagüez the line of the American Railroad. To the north and east of the highway are the rugged spurs of the main sierra. To the south, and parallel with the sierra, are a series of low, rolling limestone hills, tilted upward toward the interior, and separated by two extensive parting valleys. According to geologists, the erosive action which has produced these parallel valleys between the foothills and the mountain range threatens, in the near geologic future, to lower the bottom lands to sea level, and thereby convert the country thus cut off around Cabo Rojo and Lajas into a small island.

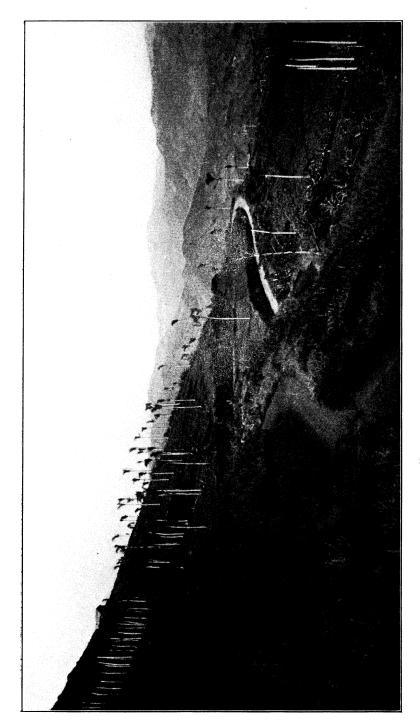
THROUGH SUGAR-CANE FIELDS.

North of Mayagüez, through Añasco, Aguada and around through Arecibo, the highway lies within a short distance of the coast and passes through level coastal plains, fertile, and highly cultivated in sugar-cane. Just north of Añasco, a high and rugged spur of mountains maintains its bulk to the water's edge, terminating in precipitous slopes with their bases washed by the waves. With the exception of the ridges north of Aguadilla, the foothills and mountains for the rest of the distance on the north are well back, and separated from the coast by broad and fertile plains so low that in places, particularly for some distance east of Arecibo, the formation of extensive tracts through the retention of alluvial deposits by the manglares growth is but recent.

On every hand green fields of waving cane greet the eye until, approaching San Juan, the broad expanse of pineapple plantations and citrus orchards occupies the foreground. Continue the journey through other parts of the Island, and everywhere will be found a never-ending panorama of fertile plains, hill-sides and valleys, and ever-changing views of mountain, dale and river. Seldom do the wanderings of a newcomer across the

Island fail to bring another voyager under the charm of Porto Rico. It is a charm that has been potent since her broad savannahs, her green valleys, and rugged and mysterious but beautiful mountains first cast their spell about the early Spanish dis-The kind-hearted and peaceful Indians that they coverers. found did not excel in hospitality and disposition the country people that the traveler in Porto Rico meets to-day. The speeding automobile sends the horse of the occasional planter in fright to the roadside and fills the rider's eyes with dust. He is not left behind, however, hurling a storm of invectives after the vanishing motor car, but a glance will show him with a smiling face. chuckling over the humor of the situation. Journeying through the interior towns and mountain settlements, or stopping to make inquiries at roadside houses, the traveler is met with courtesy. and frequently brought a cup of delicious coffee of unexcelled aroma, grown on the neighboring hillsides.

The early discoverers saw in the beauty of the Island the promise of virgin gold. To-day the visitor sees the treasure in the broad fields of sugar-cane; sees the gold in the burden of the fruit trees and pineapple plants and in the matchless nectar brewed from the coffee berry. More than this, he sees the beauty of landscape and feels the balmy breezes that must more and more allure the dweller of rigorous climes to the restful and frost-free winters of Porto Rico.



"Ever-changing views of mountain and valley."



CHAPTER VII.

COMMERCE AND INDUSTRIES.

(Figures revised to June 30, 1912.)

Resources, General Financial Conditions, External Commerce, Industries, Products.

THAT the general conformation of the Island is favorable to the extensive development of waterpower is apparent upon consideration of the fact that the numerous streams and rivers eriginate at a comparatively great height and flow but a short distance to the sea. Streams fall from altitudes of from 1,000 to 1,500 feet to the sea level within a distance of from 5 to 10 miles. Consequently, steep rapids and high falls of water are numerous, and the conveyance of water in flumes or ditches but a relatively short distance develops sufficient head to produce a comparatively abundant amount of power. The mountain gorges through which these streams flow are narrow and full of large rocks and boulders, thus reducing the expense of constructing head works or dams.

Although there are many traces of mineral deposits in the Island, little attention has as yet been devoted to their development, and they are, therefore, at present of little importance. The first Spanish settlers devoted more or less attention to placer gold mining, and their operations, which extended over many years, practically exhausted the placer deposits. Several mining claims for both precious and base metals have been filed since American occupation, but little work thereon has been done. Some placer gold mining is still carried on in the district of Corozal, about 25 miles south and west of the city of San There are traces of gold in other parts of the Island, namely, along the courses of the rivers flowing from the Luquillo Range of mountains in the eastern part of the Island, in the valleys of the Corozol, Negros, Congos, Cibuco, Mavilla, and Manatí rivers, as well as in the vicinity of Mayagüez, San Germán, Yauco, and Coamo.

The records of the Spanish Government mention silver deposits in the mountains near Añasco and in the Isabela district,

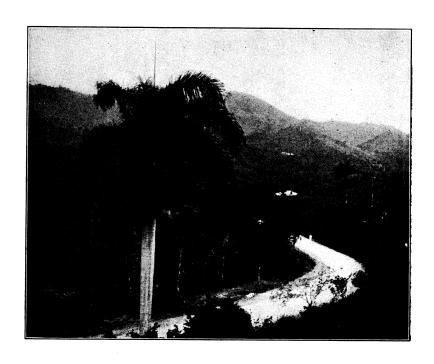
and it granted silver mine claims near Naguabo, Corozal, Río Grande, Fajardo, Lajas, and Las Piedras.

Numerous claims have been registered for the mining of iron, copper, lead, and manganese ore. Most of the iron claims are located in the vicinity of Guayama and Humacao, at the eastern end of the Island, while the copper claims are in the western portion of the Island, near Mayagüez and Arecibo, and as far south as Ponce. The latter mineral is found in the form of bornite, native copper, green and blue carbonates, and yellow copper sulphide, and is accompanied by iron pyrites and oxides. In fact, traces of copper have been found all along the range of mountains that crosses the Island from the west to the east, as far as the district of Naguabo. Most of the attempts that have been made to develop these deposits have been hampered or abandoned on account of the lack of transportation facilities.

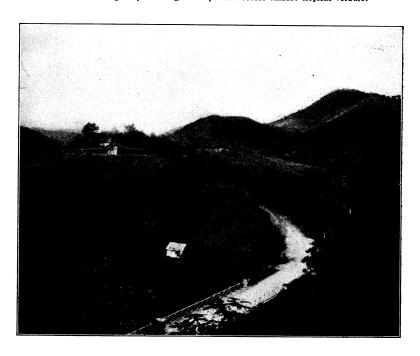
The best surface indications of iron ore discovered extend from the eastern end of the Island westward some 10 miles to Juncos, and considerable prospecting has been done by an American company, which discovered the existence of ore in quantities large enough to be of value were the deposits so located as to make shipment more advantageous. The iron is found principally in the form of hematite and magnetic ore, and averages close to 60 per cent iron, being low in phosporous and sulphur.

Near Arroyo, Mayagüez and Naranjito good samples of lead ore (galena) have been found, and the Spanish Government granted one claim for lead and another for argentiferous galena near Guayama. Traces of bismuth, near Ponce; platinum, tin and mercury, near Corozal; agate of good quality on Caja de Muertos Island; malachite on Río Blanco; and in other places molybdena, magnetic pyrite, manganite, limonite, and garnet have been found.

Considerable salt is obtained by the process of solar evaporation along the southern coast, its production having been estimated at about 15,000 tons per year. It is believed that all the salt required for consumption in the Island, as well as a large amount for export, could be produced; but owing to lack of attention to this industry it has not been fully developed, and as a result many thousands of tons are imported annually.



"The white highway winding its serpentine course amidst tropical verdure."





The excellent and extensive clay deposits afford material for brick making all over the Island, although the local methods used for manufacturing brick, tile, and clay pottery have never been modernized. Practically the entire Island is one vast deposit of limestone, which enables the extensive production of lime for industrial purposes.

Several claims for the mining of phosphate rock have been registered, namely, in the districts of Mayagüez, Arecibo, Aguadilla, and Ponce; and other deposits are known to exist. The largest known deposit, located on the Island of Caja de Muertos, off the south coast near Ponce, is owned by the Insular Government. Extensive deposits of guano are found in caves throughout the Island.

There are many mineral springs, the waters of which possess well-recognized medicinal properties, the principal ones being the springs of Coamo, Arroyo, Caguas, and Ponce. At Coamo the spring water flows from soft red sandstone at an altitude of nearly 200 feet above the sea level, with a temperature at 43 degrees Centigrade (109.4 degrees Fahrenheit). Analysis of the water of this spring shows calcium and sodium phosphates as the predominant elements, and also nitrogen, oxygen, hydrogen sulphide, free carbonic acid, potassium chloride, sodium chloride, sodium silicate, sodium carbonate, and ferrous carbonate, together with traces of tannic, nitric and boric acids, and bromine and lithia.

The native timber includes some excellent varieties of hardwood, but the present supply is so limited that small quantities for use as dimension timber can be obtained only in remote wooded districts of small area. A few exceptionally durable classes are used throughout the Island for foundations of the better class of frame buildings.

The principal resources of the Island, and those upon which its wealth depends, are agricultural, and in comparison with these the others mentioned are of minor importance. The great staples are sugar, tobacco, coffee, and fruits, the development and extent of which are properly treated at length under the headings "Commerce" and "Agriculture."

A general synopsis of the natural resources of the Island would not be complete without reference to two correlative

assets of great importance, the value of which must continue to increase in proportion to the recognition that they receive, namely, the remarkably agreeable climate and the picturesque scenery. The extent to which these two elements will contribute toward the prosperity of the Island as they become known to people from the States seeking a place in which they can avoid the severity of the northern winters cannot be overestimated.

General Financial Conditions.

One of the evidences of confidence in the industrial development of the Island is the establishment therein during the year ending June 30, 1912, cf branches of 12 foreign cor-

porations, with a total capital stock of \$1,481,500, of which \$352,940 had been paid in at the date of their authority to begin business. During the same period 40 new domestic corporations, with a combined capital of \$6,903,000, of which \$1,450,018 represented the immediate cash investment, were organized and commenced operations. At the end of the previous year 148 domestic corporations, with authorized capital amounting to \$32,357,230 and paid-in capital of \$8,017,960, that had been organized under the local corporation law, and 163 foreign corporations registered, with authorized and paid-in capital of \$398,849,973 and \$169,766,253, respectively, were engaged in business.

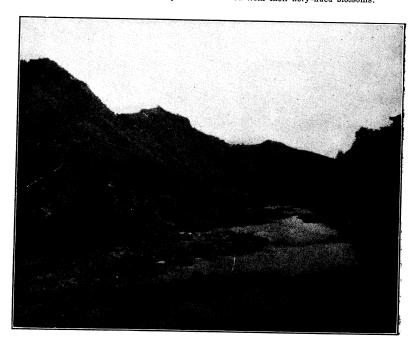
The total assessed value of all property in the Island, which is estimated to be somewhat below the actual value, is \$178,275,000, as compared with a total valuation of \$117,616,625 in 1908, from which figures, taking into consideration the usual percentage of omissions and undervaluation, it is safe to assume that the per capita wealth of the Island, based on the census of 1910, is about \$175.

The total net public debt, including that of the insular and municipal governments and school boards, is \$4,139,760, or but 2.3 per cent of the assessed valuation and 2 per cent of the actual value of property in the Island, representing a per capita indebtedness of but \$3.70, as against the average per capita indebtedness in the United States of \$10.83.

The deposits of the recognized banking institutions of the territory have doubled since 1908 and while, owing to the industrial activity of the time requiring the close use of available cash resources, they show a slight decrease from last year, their



"Never-ending rows of flamboyant trees loaded with their fiery-hued blossoms."



"Views of valley and mountain, every foot of ground *** overgrown with tropical vegetation, present a pastoral and peaceful aspect elsewhere seldom seen in mountain regions."

total was \$17,122,938.91 at the close of 1911–12. The deposits, cash resources and total at the end of each of the past three years, as shown below, indicate to some extent the rapid but healthy increase in business that has taken place during that period:

June 30, 1912	June 30, 1911.	June 30, 1910.
\$6,789,636.98	\$6,091,469.51	\$6,041,555.40 11,081.383.54
	10,679,814.14	\$6,789,636.98 \$6.091,469 51 10,679,814.14 12,552.914.61

These statistics, however, represent only the condition and operations of the 11 recognized banking institutions of the Island, and are given as indicative of the financial progress being made, but not at all as representing the total banking business of the Territory, for many commercial houses throughout the Island, following the custom of Spanish times, are still performing functions usually reserved to banks, having resources estimated at an amount equal to those of the recognized banking institutions, but of which there is no official record.

Imports and exports during the fiscal year ending June 30, 1912, invoiced at \$42,926,473 and \$49,705,413, respectively, brought the trade value for the year up to \$92,631,886. This total represents an increase over the corresponding total for the previous year of \$13,926,522, to which increase importations contributed \$4,139,476 and exports \$9,787,046. The value of imports, exports, and of the total commerce each year since the establishment of free trade between Porto Rico and the United States in 1900 is shown comparatively in the following statements:

Merchandise shipped into Porto Rico from the United States and foreign countries.

Years.	From the United States.	From foreign countries.	Total.
1901	. 10,882,653	\$1,952,728 2,326,957 2,203,441	\$8,918,136 13,209,610 14,449,286
1903 1904 1905 1906	11,210,069 13,974.070 19,224,881	1,958,960 2,562,189 2,602,784	13,169,029 16,536,259 21,827,665
1907 1908. 1909.	25,686,285 22,677,376 23,618,545	3,580,887 3,148,289 2,925,781 3,537,201	29,267.172 25,825,665 26,544,326 30,634,855
1910 1911 1912	34,671.958	4,115,039 5,501,928	38,786,997 42,926,478

Merchandise shipped from Porto Rico to the United States and foreign countries.

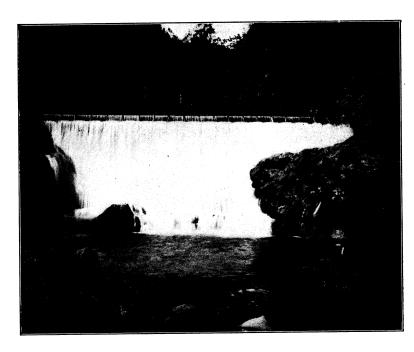
Years.	To the United States.	To foreign countries.	Total.
1901 1902 1903 1904 1904 1905 1906 1907 1908 1909 1910 1911	6,3/6,709 11.051,195 11,722,826 15,633,145 19,142,461 22,070,133 25,891,281 26,394,312 32,095,645 34,765,409	\$3,002,679 4,055,190 4,037,884 4,543,077 3,076,420 4,115,069 4,926,167 4,753,209 3,996,913 5,864,574 5,152,958 6,832,012	\$8,583,967 12,433,956 15,089,077 16,265,96; 18,709,566 23,257,533 26,996,300 30,644,449 30,391,222 37,960,211 39,918,366 49,705,413

From these figures it will be noted that while the purchases from foreign countries increased in value from the previous year \$1,386,889, the increase in value of shipments from the United States is represented by \$2,752,587.

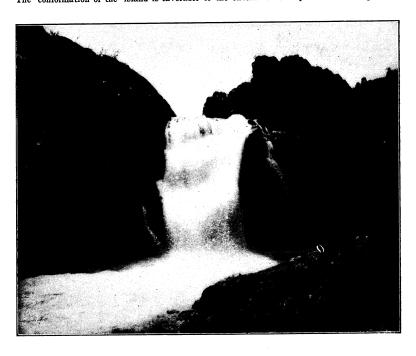
Total imports and exports by years.

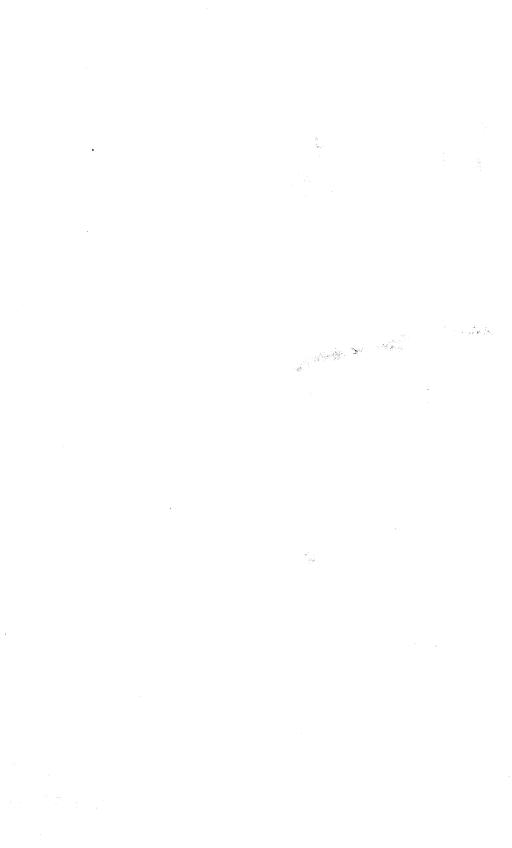
Fiscal year.	Impo	orts. Exports.	Total.
1901 1902 1908 1904 1904 1905 1906 1907 1908 1909 1910 1911	14.444 13.16 16.536 21.82 29.26 25.82 26.54 30.63 38.78	9,610 12,433,956 10,080 15,089,079 9,029 16,265,903 3,259 18,709,565 7,665 23,257,530 7,172 26,996,300 5,665 30,644,490 4,326 30,391,225 4,855 37,960,219 39,918,367	56,470.155 56,935,551 68,595.074 78,705,364

The principal local industries are confined to the Industries. preparation of agricultural products for the market, while the numerous minor local industries are as a rule those engaged in the preparation of such articles for local consumption as can not be obtained advantageously in other markets. Hence, the important enterprises are those engaged in the preparation of sugar, tobacco, coffee, and fruits for exportation. Other industries embrace the manufacture of hats, basket work, cotton ginning, brick and pottery making, the distillation of rum, the preparation of salt, the manufacture of ice, beer, and effervescent waters, the making of embroidery and drawnwork, unexcelled for its workmanship and beauty, the



"The conformation of the island is favorable to the extensive development of water power."





manufacture of shoes, and many other enterprises of more or less importance.

The gradual increase of industrial activity is indicated not only by the increase from year to year of exports, but also—and particularly during the past year—by the formation of many new domestic industrial corporations and the registration of branches of foreign corporations to engage in sugar making, raising, canning and packing fruit, coffee culture and cattle raising, shipping and transportation, and other similar lines of business.

As Porto Rico is primarily an agricultural country, a comparatively small proportion of its principal products is used in local consumption; hence its exports furnish a fairly accurate index of industrial conditions. An examination of the records of exportation furnished by the United States Customs Service shows a marked increase during the fiscal year 1911–12 in the exportation of each product.

Among the exports sugar heads the list, shipments of which aggregated 367,145 tons, valued at \$31,544,063, and, as shown by the tables following exceeded those of any previous year.

Fiscal year—	Sugar.	Cigars.	Coffee.
1901 1902 1903 1904 1905 1906 1907 1908 1909 1910	7,470,122 8,600,814 11,925,804 14,184,667 14,770,682 18,690,504 18,432,446 23,545,922 24,479,346	\$306.115 1.549.235 1.753.795 1.460.496 2.152.051 3.074.226 4.241.410 3.414.140 4.383,893 4.480.030 5.355,223 5,086.711	\$1,678,765 3,195,662 3,970,574 3,903,257 2,141,009 3,481,102 4,693,004 4,304,609 3,715,744 5,666,602 4,992,779 6,754,913

Sugar exports.

Fiscal years.	Tons.	Value.	Average price per ton
1901 1902 1903 1904 1904 1906 1906 1907 1908 1909 1910 1911	91,912 113,108 129,647 135,663 205,277 204,079 231,607 244,257 284,529 322,919	\$4,715,611 5.890.302 7,470.122 8,690.814 11,925,804 14.184.667 14,770.682 18,690,504 18,432,446 23.545,922 24,479,346 31.544.063	\$68.44 64.06 66.0- 67.09 69.16 72.33 76.55 75.44 82.77 75.88

Tobacco.

Exportations of manufactured and unmanufactured tobacco are reported to the value of \$7,406,841, made up of \$5,086,711 for cigars and \$2,320,130 in leaf and wrappers. While the marked increase in exportation of cigars and tobacco affords some indication of the development of this industry, the large quantity consumed in the Island makes a glance at the record of production, consumption, and exportation necessary in order to obtain a better idea of the actual extent of its growth. The following statements show, comparatively, the figures for the past five years:

Cigars.

Fiscal years.	Withdrawn for consumption.	Withdrawn for export.	Total output.
1908	76,983,830	103,781,719	180,765.549
1909	84,933,260	140,302,271	225,235,581
1910	92,700,160	151,724,438	244,424.598
1911	101,061,495	174,743,098	275,807,593
1912	111,682,615	169,765,656	281,448,271

Cigarettes.

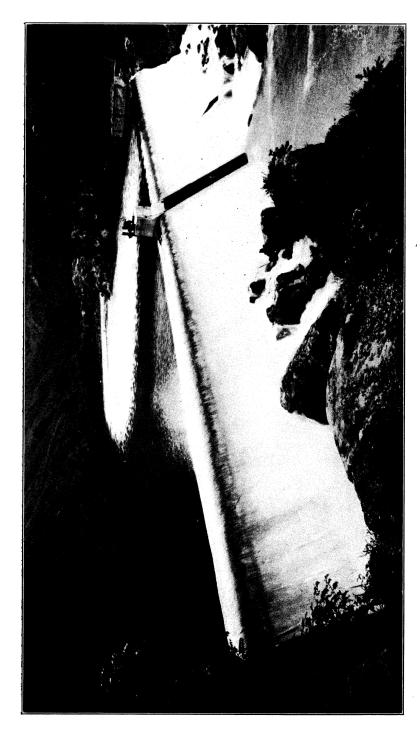
Fiscal years.	Withdrawn for consumption.	Withdrawn for export.	Total output.
1908	355,525,500 393,844,300 459,710,045	11,232,424 11,244,500 13,142,000 11,760,000 11,293,350	365,640,324 376,770,000 406,986,300 471,470,045 543,724,350

Tobacco leaf and scrap exported.

Fiscal years.	Pounds.	Value.
1908 1909 1910 1911 1912	4,539,320 4,176.172 4,450,012	\$1,996,055 1,250,237 1,258,317 1,554,783 2,320,130

Coffee.

The following statement showing number of pounds of coffee exported since 1901 indicates that while last year's crop was far above the average, it was 5,063,427 pounds short of the





amount exported in 1910, but at the same time the average price—16.8 cents per pound—was higher than that of any previous year:

Fiscal years.	Pounds.	Value.	Average price.
901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911	12.157,240 26,906,399 35,207,189 31,329,972 16.849,739 28,290,322 38,756,750 35,256,489 28,489,236 45,209,792 38,937,021 40,146,365	\$1,678,765 3.195,662 3.970,574 3.903,257 2.141,009 3.481,102 4.693,004 4.304,609 3.715,744 5.669,602 4.992,779 6,754,913	\$9.137 .118 .112 .113 .127 .123 .121 .122 .13 .125 .147

Fruits.

Shipments of fruit as shown by the following record of exportations indicate the most remarkable increase in any of the Island's products. From an exportation in 1901 declared at \$109,801 shipments have increased in value to \$2,377,762, the principal increase being in orange, pineapple, and grapefruit exportations, as shown below.

Fiscal years.	Oranges.	P ne- apples.	Canned pine- apples.	Coco- nuts.	Grape- fruit.	Other fruits.	Total.
1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912	51.364 230.831 352.646 125,422	(*) (*) (*) (*) (*) (*) \$27.826 64.831 172.779 442.780 555.044 641,291 684,774	(*) (*) (*) (*) (*) (*) (*) (82.08 117.830 1106.587 149.744 258.671	\$8.334 12,720 326 (*) (*) 129,793 174,957 206,704 204,498 218.870 258,168 308,883	(*) (*) (*) (*) (*) (*) (*) \$7.586 41.585 76.310 162.749 309.698 525.048	\$16.992 9.898 61.956 81.214 130.478 7.420 3.737 11.320 18.154 9.851 11.123 15.972	\$109.801 73.982 293.103 433.860 255.900 502.858 783.942 1.164.261 1.261.484 1.635.817 2.073.993 2.377,762

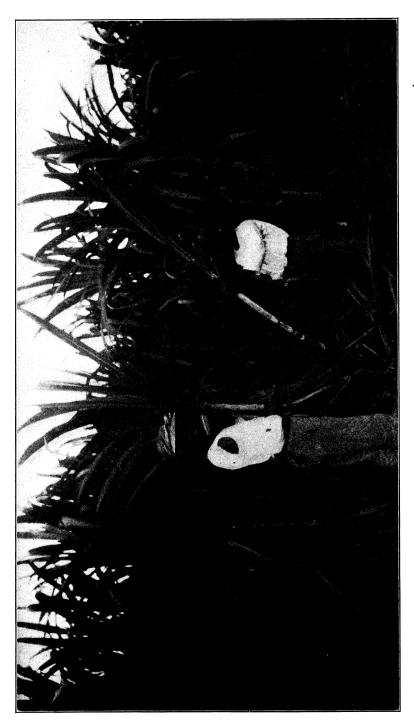
Value of fruits.

From the foregoing figures it will be seen that while the change in tariff conditions has had a marked effect on trade with the United States, it has not interfered with a steady increase of the trade with markets outside the tariff wall.

Among the principal classes of imports from the United States during the past year were breadstuffs invoiced at \$7,548,100, including rice shipments valued at \$4,894,747, and flour at

 $^{\ ^*}$ Shipments included under "Other fruits."

\$1,757,278. The imports of cotton goods aggregated in value \$5,575,642; manufactures of iron and steel, \$4,445,396; meats and meat products, \$3,194,047; and leather goods, \$1,599,047. Other imports both from the United States and from foreign countries consisted of merchandise of every description required for use and consumption in a prosperous and progressive country.



Sugar-cane in Porto Rico "grows for twelve months and becomes larger and swelter than that of Louisiana."



CHAPTER VIII.

AGRICULTURE.

Natural Conditions, Soil, Coffee, Sugar-cane, Tobacco, Fibers, Rice, Vegetables, Fruits, Forage Crops, Live Stock and Poultry, Irrigation.

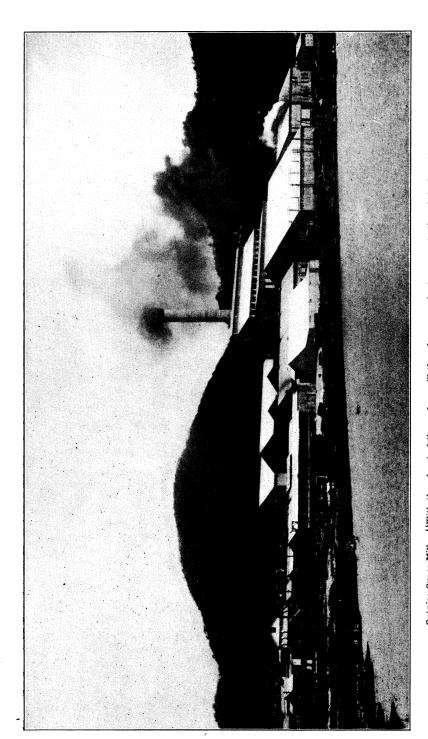
PORTO RICO is essentially an agricultural country. It has been so since the beginning of its history and will continue, as all the conditions favor agricultural production. While there is some manufacturing done on the Island, it is probably only because of the fact that there is an abundance of cheap labor available, labor that is especially skilled in some handicrafts, as cigar and cigarette manufacturing, weaving and drawnwork. The country being well within the Tropics lends itself to a great diverstiy of agricultural products. The people have adapted themselves to this industry, the aborigines dwelling in the open country and living more by some of the native crops, rather than by hunting or fishing even. The Spanish settlers came to the Island to follow agricultural pursuits, and all slaves brought were for the same purpose.

The lay of the land and difference in soil and climate make conditions peculiarly applicable to diversified agriculture. While in the beginning efforts were confined to a few crops, the tendency has grown, and much greater in recent years, to the production of a large variety of agricultural produce.

Porto Rico being mountainous in the interior, the growth of agriculture has spread from the seacoast inland. this date virgin forests of some extent are found in the interior From these and the appearance of woods near the sea coast the Island at the time of the discovery was covered The conquering of the soil was doubtless no with forests. different from that in other countries of the Western Hemi-This consisted in clearing off and burning the timber The history of agriculture, therefore, is not essentially different from that in the States. It consisted in mining the soil—that is, extracting crops without regard to the poor condition in which the land was left—the idea prevailing that when the soils became exhausted they could be turned into pasture and new land taken up. The result has been that many of the deforested areas, especially the foothills lying between the level cane land of the coast and the interior mountains, have become sterile, producing only scanty herbage. The mountains, owing to their inaccessibility, have not been greatly exploited.

Life in the country in Porto Rico has doubtless always been The soil is naturally fertile, and the wants a pleasant one. of the people living in such an ideal climate must be necessarily We are led to believe that the aborigines were a contented people, easily obtaining the few necessaries of life that The later civilization that grew spontaneously about them. followed found the country a delightful one. The patriarchal system abounded, with the planter of large means surrounded by his many slaves. The fact that Porto Rico was never in revolt against the Spanish Crown is a strong evidence of the contentment that prevailed within her borders. During the latter part of the last century, however, the influence of modern thought no doubt told upon the condition of life in Porto Rico. Slavery was abolished in 1873, yielding before the march of public opinion, and also due, doubtless, to the fact that the slaves so increased in number that the planters found it a very difficult matter to provide for them. At the time of the American occupation the conditions, which may be judged by the trade of Porto Rico, were not flourishing. Lands were low in value, and there was a lack of employment for a great mass of poor in the Island. There was no definite policy in growing crops, but the tendency was to change over from one to another as different world conditions and tariff laws came into effect. For some years after the civil war in America cotton growing had flourished, but with the lowering in prices in the world's markets the fields were given over to other products. close of the last century Porto Rican coffee was the crop favored by Government regulations. The larger part of the production of Porto Rico was consumed in the mother country, Spain, and in the sister Island of Cuba. The coffee planters were the more prosperous on the Island, and this industry reached the highest development. Many new lands were planted, and the production greatly increased. The stimulus, however, was artificial. planters, not realizing this went heavily into debt, and later, when economic changes were brought about, reducing the profits, many lost their plantations and were reduced to poverty.

The change from Spanish to American sovereignty in 1899 was in some respects a very radical one to the agricultural interests of Porto Rico. This was by reason of the fact that



Guánica Sugar Mill.-"With the advent of the modern mill there has come about a concentration of the industry."



an entirely different set of tariff duties and regulations took the place of the old ones.

From the character of the people, the configuration of the Island, its flora and fauna, the aborigines in Porto Rico undoubtedly lived on agricultural products. They doubtless had no means of taking many of the fish that abound in the waters about the Island. No fish of size are taken from the inland The animal life of the Island was very sparse, and waters. it was impossible to live by hunting and fishing. Many plants that are still cultivated by the poorer classes abound, and without doubt have formed their food supplies during several The density of population and the fact that it is largely rural, without any general means of employment except on the farms, also indicate that Porto Rico must continue as in the past an agricultural country. At the time of the discovery very little was found in the Island of export value. The early Spanish settlers confined their operations to the washing of gold, and although the yield was small, they utilized the Indian labor for this purpose. Not until a half century was there any effort made to exploit the agricultural possibilities. In 1548 the first sugar mill was built, and in 1581 there were 11 in operation, producing about 187 tons of sugar. climatic standpoint Porto Rico is well adapted to the growth of many economic crops. The northern two-thirds of the Island is well watered; the southern side is much drier, and it is necessary to irrigate to produce some crops. The precipitation ranges from 25 to 100 inches annually. December, January and February are considered the coolest months, while August, September and October are the warmest. The trade winds blow almost continuously and greatly modify the climate. temperature ranges from 55 to 95 degrees. It averages about 8 degrees cooler in the winter. The climate is essentially tropical, and frosts never occur.

In general form the Island is rectangular, being very small, approximately 40 miles in width and 100 miles in length, the greater distance being east and west. It is traversed by a series of mountains varying from foothills to peaks 3,500 feet high. The mountains are always covered with herbage and are green throughout the year. While the declivities in some cases are very steep, yet the soil is such as to permit the growth of plants. The hills are of sedimentary origin, and indicate that they were lifted above the sea in comparatively recent geologic ages.

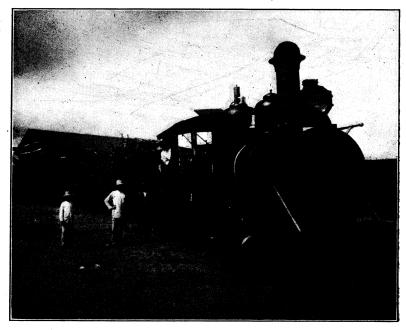
Most of the higher mountains are of a reddish or black clay. There are ranges of smaller mountains that are composed largely of coral limestone, plainly indicating their former position below the sea level. At the base or the mountains and extending around the hills is a low coastal plain, which has been formed by the washings during many centuries from the higher hills or mountains. The sea but a short distance north of Porto Rico is one of the deepest parts of the known ocean. The surface of the earth shown without water would represent Porto Rico as a very high mountain upon a plain. The rivers are short and not navigable to any extent. Very few swamps or lagoons Along the northern part of the Island the hills are separated into parallel chains, with many small valleys between. On the south side they are more closely packed together and Under the influence of the tropical climate these hills are being continually washed down into the lower country. In some parts great caves are formed in the limestone, some of which are filled with bat guano, deposited through many years, and which is of great agricultural value. The broken nature of the land, its caves, waterfalls, trees, ferns, and other tropical growths make it a land of peculiar beauty, all this lending itself to the economic purposes of man, as almost every foot is tillable. Although it is a country of great agricultural possibilities, Porto Rico is destined to be a great pleasure resort. It is a Switzerland within the Tropics, the snow-capped mountains of that country giving way to the verdure-covered hills of greater beauty.

The interior is traversed by trails, and the agricultural productions must be of a class that may be transported on the back of pack animals and that are not perishable. It is for this reason that coffee has obtained a great foothold in the interior and is destined to remain one of the chief industries.

The soils of Porto Rico vary to a great extent. This Soil. variation is caused partly by the differences in climate in the various sections, but mainly from the character of the rocks from which they are formed. In the Tropics the growth of vegetation, which tends to loosen soils, and the heavy tropical rains, which move them about, are very active in eroding the hills. The soils naturally conform to the hills on which they are found or to the valleys below them. In Porto Rico the soils vary from the sand of the coast to those derived from the disintegration of volcanic rocks in the interior. Where the soils



Old and new methods of transporting sugar-cane.



.....



are derived from coral reefs they are naturally mostly composed Again, some of the alluvial soils near the large rivers are made up of particles from the various geologic formations, are of good physical texture and the best agricultural lands. Some of the different types of soils may be described as follows: Coral sand, which consists of coral and shells ground up by the action of the waves and mixed with a small amount of quartz sand brought down by the rivers. This type of soil is found around the coast and is usually adapted to cocoanut growing. They are also utilized for growing bananas, sweet potatoes and various kinds of beans, or such crops known as "frutos menores" for local consumption. Further back from the coast are found sandy soils of a somewhat different grade, being mixed with a greater or less quantity of decomposed organic matter. soils are easily cultivated and productive, though liable to suffer from drought. Besides small crops, some have been planted to citrus fruits and have proven successful under intensive culti-They approach nearer the citrus soils of Florida than those of the interior. For pineapples they have not proven successful, owing to an excess of lime, toward which the pineapple is very sensitive. Further inland to these soils there are found certain silt loams brought down from the hills. These soils are the most productive of any and are usually devoted to sugarcane. They are rather heavy, but vary in character in different parts of the Island. This variation is not due to the method of formation, but rather to the character of the hills lying above them and from which they are made up by washings. On the north side of the Island the rainfall is sufficient and the soils strong enough to permit of their almost continuous cultivation to cane. On the south side they are richer because of the fact that the method of irrigation better conserves their fertility. Since the American occupation these lands have been devoted almost exclusively to cane growing, with occasional rotation The interior soils are of various kinds. with pasture. the coral foothills they are very rich in lime; in the higher mountains they are heavy clays, many of them formed by the disintegration of volcanic rocks.

Irrigation is practised only on the south side. This is done by using the water from the rivers, turning it aside by dams and by pumping. Water is found at no great distance below the surface and is raised by steam and gasoline pumps. An immense engineering project costing \$3,000,000, is now under

way which will greatly extend the area under cultivation on the south side. This is being installed by the Government and will be paid for by the owners of the land receiving benefit from the water. On the north side it is necessary to drain many of the lowlands, which is accomplished by surface drains. Tile drains are slowly growing in favor and in time will supplant the present method. Several areas of swampy lands are drained annually, and one enterprise of great extent is now being carried out on the north side. The use of the land so drained has been granted to private parties by the Government covering a definite term of years. Comparatively, there is very little land of this nature in Porto Rico. On the south side alkali exists in some places, and the methods of farming followed must be carried out with the idea in view of improving rather than increasing the danger from this source.

At the time of the American occupation methods were very primitive. Even yet such conditions prevail in certain lines of agricultural production. The steam plow and the wooden plow may still be seen in fields side by side; the latter condition, however, is rapidly passing. Each year sees more and more machinery employed in agriculture, although in certain localities the hoe and the machete must still be used owing to the topography of the ground. In the care of the soil, the rotation of crops and the maintenance of fertility, much is left to be desired; also the utilization of manures, fertilizers and leguminous crops is capable of great improvement. It is a strong argument for the original fertility of the soils of Porto Rico that they have been able to withstand the methods of cultivation that have been practised with them for so many years. In general the soils of Porto Rico require the three elements of the fertilizer-namely, nitrogen, phosphorous and potashand a great many of them are in need of lime. The element usually deficient is nitrogen. There are a great many leguminous plants in Porto Rico that add enormous quantities of nitrogen to the soil every year. It is also claimed that tropical rains earry more nitrogen every year into the soil than in temperate countries. In the coffee plantations there have been used for shade leguminous trees, and these have doubtless added more than anything else to the possibility of continuous coffee cultivation, which has characterized these lands for so many Most of our lands are well supplied with iron, which years.



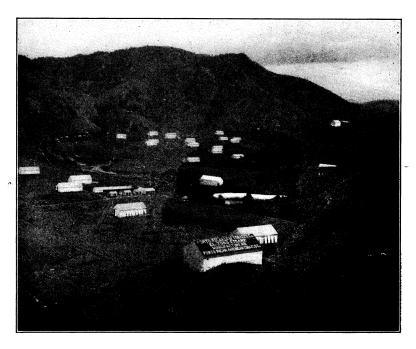
Higher grades of tobacco leaf grown under cheese cloth.



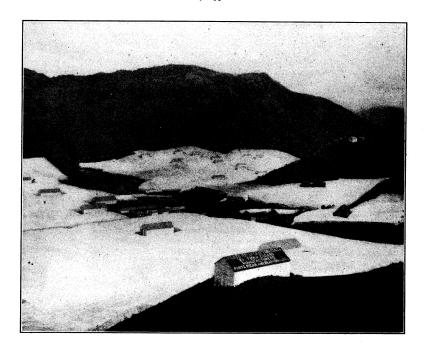
doubtless does its part in producing the brilliant coloring of our fruits.

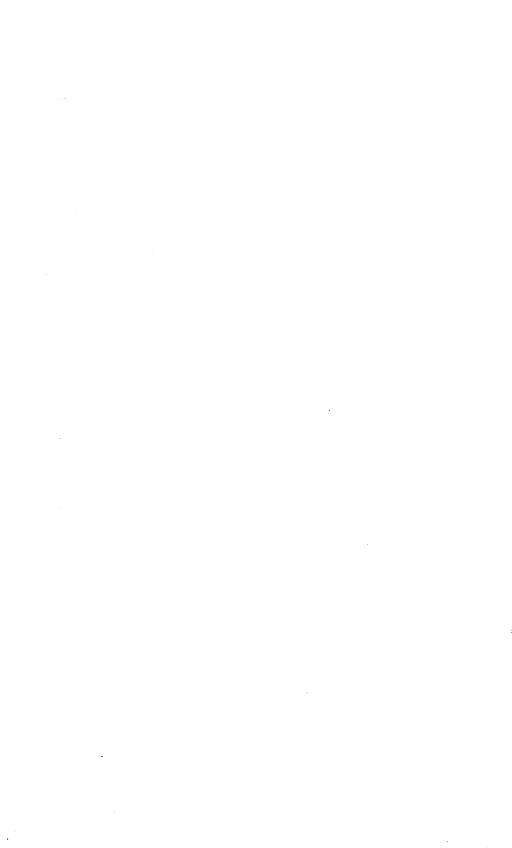
The greatest change in agriculture occurring in Porto Rico in recent years was not brought about by natural Coffee. conditions, but artificial ones. This change occurred with the transfer of sovereignty from Spain to the United States, and was brought about by the sudden application of the laws of the latter in lieu of the former. At the time of the American occupation the principal industry was coffee. Spain had a method of framing her laws to favor one industry in a certain colony and another in an adjoining one. In Porto Rico the favored crop was coffee. The tariff laws were such that this industry was highly favored in the markets of Spain and other countries and in some of the colonies, as Cuba. The result was that this industry was very highly developed in the Island. Although coffee had been grown in Porto Rico for many years, it reached its highest development in the latter part of the last century. It had extended itself throughout almost the entire Island, only a small amount of virgin land not having been planted. This industry gave employment to a great many people, as it is one that requires a great deal of labor and can utilize all members of the family, including the women and children, in its harvesting, which extends over several months. The wants of the people engaged in such industry are naturally They live in isolated regions and a favorable climate, requiring little in the way of clothing. The coffee industry was developed in Porto Rico during the period of slavery. The planter, who was usually a man of means, lived in state, surrounded by numerous members of his plantation. Spain had granted large tracts of land to planters, the amount depending upon the number of slaves. The number of such had increased to such an extent that at the time of emancipation, in 1873, the planter had little to lose in the change. In fact, economic conditions had already reached that point where, under the conditions imposed by the Spanish Government, the abolishment of slavery was a relief rather than a loss. The planter was absolved of certain responsibilities in regard to his slaves and at the same time had an abundant supply of labor at a low cost when he needed it. While the slaves were free, yet the relations between them and their former masters were not While it is true that they received a materially different. wage in most cases, yet by a patriarchal system that continued,

it meant but little difference in their mode of life. In many cases the plantation was a community within itself, and not only was labor furnished the dependents, but they felt that in a way they belonged to the plantation. In many cases plantation stores were established, and the laborers were paid in merchandise, or, in some instances, plantation money was issued by the planter, good only at his own store. Life on a coffee plantation was quiet but pleasant, and under the economic laws of Spain the industry was a fairly profitable one, even with the decreased yields that were already coming to the industry by reason of continuous production of the same crep on the land. As money was comparatively easy, many planters carelessly went into debt and in most cases paid enormous rates of interest. Money lenders were doing a profitable business in those days. At the time of the American occupation this industry was very hard hit by the wiping out of the tariffs or bounties provided by the Spanish Government. Porto Rican coffee found itself suddenly faced by keen competition with Brazil and other coffee-producing countries of the world. Moreover, it found its old favored market of Spain and Cuba cut off or curtailed by tariffs. Again, this coffee had never been sold in the markets of the United States; it was not known there. People did not know how to prepare it as it should be prepared to bring out its best qualities and its peculiar aroma so relished by the Latin countries of Europe. To add to these hardships, in 1899, shortly after the American occupation, a disastrous hurricane visited the Island, which caused enormous damage to the coffee plantations. This hurricane occurred in August of that year, just before the harvesting of the crop, causing the loss of all the berries on the trees, entirely wrecking some plantations, and washing the fertile surface soil into valleys below. The recovery from this disaster has been slow, the coffee planters in many cases, being loaded with debt, lost their plantations. In many cases the new value established for such land was far below the loans, which were running from 12 to 24 per cent against them. Many plantations were sold and others abandoned. This not only has resulted in the ruin of planters, but left the condition of the poorer classes, who were dependent upon labor on the plantations, in a deplorable It was necessary at the time of the disaster for the United States Government to send several million dollars' worth of supplies into the interior to save the people from starvation.



A tobacco-producing section before and after the growing crop has been covered with cheese cloth. "From a distance the valley appears to be filled with snow."





The coffee industry during the American occupation has shown some improvement, but from the statistics it has been slight compared with the other industries. The following table shows the sales of coffee from Porto Rico from the year 1901 to 1911, inclusive:

Years.	Value.
1901	\$1,678,765
1902	3,195,662
1903	3,970,574
1904	3,903,257
1905	2,141,009
1906	3,481,102
1907	4,693,004
1908	4,304,609
1909	3,715,744
1910	5,669,602
1911	4,992,779

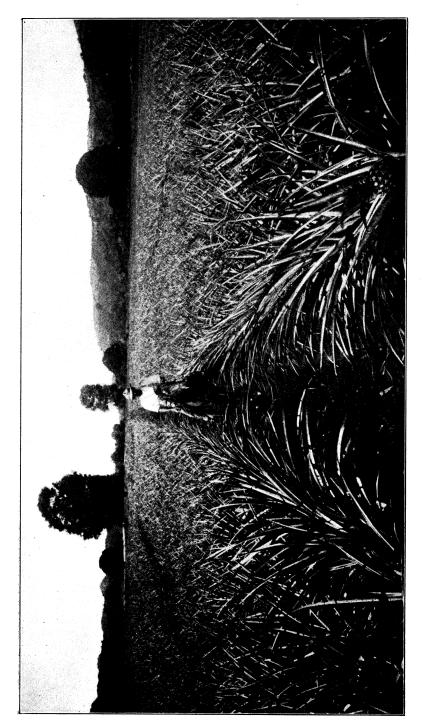
This indicates that the production has averaged an increase, but it does not tell the whole story of the improvements of the coffee plantations. There has been a tendency to diversify crops where formerly only coffee was grown. This is especially so where the plantation is accessible to market, and it has been greatly extended with the building of macadamized roads, which have made a wonderful growth since the American occu-The coffee planter is learning, as the planters had to in the South after the civil war, to diversify his crop. cotton has given way to other productions there, so has coffee in Porto Rico. The coffee grower has found it profitable to sell his wild oranges, to increase his sales of wood and charcoal, in some cases to put bees on his plantation, and to seek various means of revenue of which in the old days of easy money he He has also found that unless he gives emnever thought. ployment to his laborers throughout longer seasons of the year they will leave his to go to the cane plantations on the coast and the tobacco plantations in the valleys of the interior. With the increased production of his farm he is now able to borrow money at a lower rate of interest, while a few years ago he could not borrow it at all. All of this is reflected in the increased value of coffee lands, which naturally follows a greater productiveness.

While the coffee industry suffered by the change in sovereignty in Porto Rico, the cane industry was materially helped. With the granting of free

trade between Porto Rico and the United States the cane industry was put on an equal footing with that of Louisiana, although being operated on lands that were much more productive. Being in a climate of perpetual summer, cane grows for twelve months and becomes larger and sweeter than that of Louisiana, while naturally the plant is more productive than the sugar beet of the West. The increase in prosperity that came very quickly to the cane planter was evidenced in the increased value that suddenly accrued to his lands. Cane lands that could be purchased at the time of the American occupation for \$30 an acre suddenly leaped to \$100 per acre, and now are worth \$200 per acre.

All the low coastal lands are devoted to this crop, and it is the unceasing endeavor of the cane grower to grow cane year after year on the same land, avoiding rotation whenever possible. This unnatural condition is by reason of the fact that cane on such lands is more productive than anything else he could possibly engage in. It is contrary to the best agricultural practice to grow the same crop continuously on a given area, but such a condition can be bettered by methods of fertilizing and cultivating. This has been a benefit in a way, as it has caused the cane planter to give a close study to the production of his crop. It has lead to a keen competition between growers to produce more on a given area, especially as high prices continue and the amount of land available in Porto Rico for cane production is circumscribed. However, areas that were never devoted to cane are being planted, and the industry is extending into the interior valleys and further to the foothills around the coast.

The limit of sugar production has not yet been reached, nor will it be for some years if the present economic conditions prevail. The greatest increase, however, will be for some time by reason of the fact that better methods of cultivation are being followed and more rational methods of fertinzing the soil are practised. With the increased production of sugar in Porto Rico has come about even greater changes in methods. During the Spanish occupation planters had their own mills and ground their own cane, manufacturing sugar and molasses on the plantation. The power utilized for this purpose was steam, water, and animal power. Many of the older mills employed oxen for grinding, and the sugar was made in open



"Soils suitable to pineapples are rather extensive, and the fruit can be grown in all sections of Porto Rico."



kettles. By such methods about 60 per cent of the sugar was extracted, while the losses from crude methods were very large. Since the American occupation large mills with modern equipments have been established, and the planter has found that he can sell his cane to the large central or have it ground on a percentage basis and get more out of it than he could by his old-time mascavado plant with his open kettle.

While Porto Rico is dotted over with abandoned cane mills, with their tall chimneys pointing to the sky, yet this does not represent a direct loss, but rather a monument to the growth of modern methods in an industry. On the other hand, the old mill still stands and may be fitted up as others have been when the price or the terms of the large centrals have not been favorable to the planter's interests.

The increased prices the planter has been able to obtain and the entrance of this product without duty into the markets of the United States have enabled him to buy machinery, fertilizers and to employ labor to enable him to produce maximum crops from his lands. The favorable conditions prevailing have enabled him to accelerate his production. Not only has he learned from his neighbors, but he has found that the managers of the big centrals have employed men to assist him in his production and to introduce new canes, study diseases, and combat insect pests. The enormous growth of this industry in Porto Rico since the year 1901 is shown by the following table of exports of sugar from the Island to 1911:

Fiscal years.	Value.
1901	\$4,715,611
1902	5,890,302
1903	7,470,122
1904	8,690,814
1905	11,925,804
1906	14,184,667
1907	14,770,682
1908	18,690,504
1909	18,432,446
1910	23,545,922
1911	24,479,346

The tobacco industry in the last few years has reached a higher development than ever before known. This has been not only in the production of the leaf, but in its manufacture. The soils best suited for otbacco growing in Porto Rico are somewhat limited in extent. As a

rule, they are confined to the valleys of the interior and the adjacent hills. In general, the texture is too heavy as compared with the standard of typical tobacco soils in the United States for the production of high-grade cigar tobacco or wrappers. The percentages of clay and silt are rather high, and where this is excessive the tobacco is too heavy to meet the market demands in the United States. However, there are many soils that are well adapted to the production of a tobacco of superior flavor and aroma, and by improved methods to topping, harvesting, curing, and fermenting the quality of the Porto Rican tobacco has been greatly improved in the last few years.

In Porto Rico the tobacco-seed bed is usually planted on high sloping land. This is sometimes plowed and sometimes dug with a hoe. Ditches are dug to carry off the excess of water and the tobacco sown in the elevations between. If level land is planted as a seed bed, it is plowed and the grass allowed to rot, after which the surface is leveled and the weeds removed preparatory to sowing the seed. The seed bed is usually gotten ready in August or September. The first sowing is made in August, and a later one fifteen days afterwards in order to have plants for replacing those that die in the fields. The quantity of seed varies, but is usually large. This is due to the fact that seeds are often poorly kept and lose their germinating power. It requires from 45 to 60 days for the plants to reach a suitable size to be transplanted. The work of women and children is employed largely in the seed bed and in transplanting. The setting in the field usually begins early in November, but this varies somewhat in different localities. It is said that early plantings produce a larger percentage of wrappers on account of the plants not being cut The number of plants to the acre varies in different systems, but, as a rule, they are set 16 inches apart in rows 24 inches distant. If the soil is soft, the transplanting is done by hand; but if it is hard it is generally done with a machete. As this work is done very rapidly, not much care is usually followed in the same, but the tobacco plant, being a vigorous grower, soon recovers itself and sends out new roots, and then 15 or 20 days after transplanting the first cultivation is made, which is usually with a hoe.

The topping consists of pinching off the terminal bud and

leaving the requisite number of leaves. This follows from 40 to 60 days after transplanting. The number of leaves on the plant varies from 8 to 20, usually from 10 to 12. Pinching off the button flower results in larger and heavier leaves. practice formerly was low topping, as that makes a dark, heavy Since all of our tobacco now goes to the United States market, the tendency is to grow more leaves on the plant, which makes a lighter colored, thinner leaf, more mild in flavor. After topping a great many suckers come on the plant, which are taken at intervals from four to eight days until time of harvesting. The harvesting takes place from three to three and one-half months after planting. About 30 or 40 days after topping the leaves begin to ripen, which is shown by their When this is observed the plants are cut close turning vellow. to the ground. There is more of a tendency now to harvest the leaves as they ripen, especially for wrapper tobacco. These leaves are then strung on cotton yarn and hung in the curing By such methods a much more uniform product is obtained. Sunny or hot days are usually chosen for harvesting. as the plants have more gum on those days and therefore cure up better. After cutting the plants are allowed to wilt on the ground and then transported to the curing house, usually on poles carried on the shoulders. Some of the larger planters, however, are now using wagons for this purpose. houses were made formerly of yagua, or the base of the royal palm and the leaf of that tree. These are rather crude buildings, and it is very difficult to control the moisture. rainy weather great losses have been sustained by reason of the dampness in the curing house and, in the dry weather, by the tobacco too quickly curing and failing to develop the proper Many houses are now constructed of sawed lumber. and have windows or shutters that may be closed and opened at will, insuring a more uniform temperature and a degree of moisture within the curing house. The tobacco crop from beginning to end depends very largely upon the weather, and any method looking to the control of these conditions aids very materially in eliminating the chances for loss in this crop. The time required for curing is usually about 21 days, but it varies with the weather conditions. After the leaves are cured the tobacco is placed in piles between green plantain leaves, when the first fermentation takes place. The leaves are then stripped

and assorted into different classes, termed capas, tripas y capas, tripas and boliches—i. e., wrappers, fillers and wrappers, fillers, and the bottom or sand leaves. These are also divided into grades and tied into bundles.

The fermentation of tobacco in Porto Rico has been greatly improved within the last few years. The methods followed approach those of Cuba, and have resulted, as a rule, in greatly improving the product. The fermentation is carried on in piles, as in Cuba, and when a certain degree of temperature is reached these are torn down and other piles built up. Great skill is necessary in the proper fermentation of the tobacco, and upon this process depends very largely the value of the product. The tobaccos of Porto Rico are classified under the following heads: Light wrapper, capa fina clara; dark wrapper, capa oscura; light wrapper and filler, tripa y capa clara; dark wrapper and filler, tripa y capa oscura; heavy filler, first length, tripa primera calidad; heavy filler, second length, tripa segunda calidad; fine filler, first length, tripa primera fina; fine filler, second length, tripa segunda fina; ordinary, tripa ordinaria: sand leaves, boliches.

One of the most serious insects to the tobacco plant in Porto Rico is the *changa*, or mole cricket. This insect burrows beneath the ground and cuts off the young plant. It is very destructive in loose soils. As it works underneath the ground and usually at night, it is a very difficult insect to deal with. To guard against it the plants are often set with a leaf, as that of the *mamey*, around the young plant to avoid the attacks of the *changa*. Other insects demaging the crop are the flea beetle and the tobacco hornworm, the latter being picked off by hand as a rule.

The modern development of tobacco growing in Porto Rico is the practice of planting it under cheese cloth. This is done for the purpose of producing wrappers. Tobaccos so grown have a finer texture, are thinner, and much freer from holes, as the cheese cloth keeps out many biting insects. This method has been practised very extensively in some of the interior valleys, sometimes such plantings being several hundred acres in extent. From a distance the valleys appear to be filled with snow and make a striking contrast with the surrounding green-covered hills. The cheese cloth is stretched over poles and wire about 10 feet from the ground. Such

plantings are extensive and are followed mostly by the large companies, the small planter being unable to invest in the enormous supply of cotton cloth necessary.

Experiments with fertilizers indicate that the tobacco crop can be very greatly improved by their use, and a great stride has been made in more rational methods of fertilizing the crop. This being a quick-growing crop it is very greatly influenced by the nature of the fertilizer. Certain kinds of fertilizers also have a great influence on the quality of the tobacco, and the elements of fertility in certain forms are injurious to the crop, decreasing either the aroma or the burning quality. In tobacco culture we must, as in other branches of agriculture. follow to some extent local conditions. In Porto Rico methods that are successful in other countries need to be modified. is by reason of different climatic conditions and also by the depredations of insects, especially the mole cricket, which is not a drawback in some of the tobacco-growing countries. Much greater skill must be employed in selecting the tobacco lands and in fertilizing them after they have been selected. From the great amount of experience that has been reached in growing tobacco in Porto Rico the best areas are now pretty well mapped, but much needs to be learned of the peculiarities of the different soils and their fertilizer requirements. curing must be under better control as regards moisture, and still further improvement may be made in the fermentation. It is found that tobacco grown on moist soils requires a different period in fermenting for bringing out the peculiar aroma. is very important to know at what stage to stop the fermentation and to keep the fermentation from again starting. bacco over fermented is more undesirable than tobacco under fermented. Sometimes tobaccos that have been fermented and stored set up fermentation in the package and deteriorate very rapidly.

Great improvements can also be made in the seed beds. The soil to be sown as a tobacco seed bed should be sterilized either by burning or by the application of some disinfectant applied previous to planting. The losses in the seed beds in Porto Rico are enormous and should be cut down. In some seasons there has been a total loss in some sections, and in order to get a crop for that season it has been necessary to bring plants at great expense from other points.

The manufacture of tobacco has gained enormously in Porto Rico since the American occupation. There is a large supply of labor on the Island trained in the handling of tobacco through the different processes of manufacture. In a number of towns large buildings have been erected where cigars and cigarettes are being made and an army of laborers employed for this purpose, both men, women and children. The laborer as a rule is very adept in its manufacture, the supply is fairly abundant and the cost of such labor, compared with that in the States, is very low. The exports of both leaf and manufactured tobacco, as shown in the following table, indicate the growth of this industry in Porto Rico during the last ten years:

Fiscal year.	Value.
1901–1902	\$684,391
1902–1903	1,691,516
1903–1904	1,958,064
1904–1905	1,752,531
1905–1906	2,599,293
1906–1907	
1907–1908	
1907-1908	′
1909-1910	
	6,910,006
1910-1911	0,010,000

Cotton. During the civil war in the States the cotton industry assumed large proportions in Porto Rico. This was due to the high prices the staple reached on account of the civil war.

In later years, owing to the depredations of insects and the lower prices for this product, the industry suffered a great decrease. The production runs now fairly uniform. The kind produced is exclusively sea island. While it has been demonstrated that sea island cotton can be profitably grown in Porto Rico, the extension of this crop, however, is not making much progress. It is a plant that has grown here from the earliest times; in fact, cotton is supposed to be indigenous to the Island, but it is a crop that has never appealed to the people, as there have been others that bring larger money returns. There is no doubt, however, that many of the smaller farmers can make this a very profitable industry, especially as they can employ the women and children of their families in its production. It is a crop, however, that needs fertilizers to get adequate returns, and not until our planters learn the proper use

of fertilizing materials can they expect a very large income from cotton growing.

There is no boll weevil in Porto Rico, and, compared with the Southern States, the Island is comparatively well off in its freedom from insect enemies of this plant. The cotton caterpillar is the only serious menace, and this insect can be kept in check by well-known means, provided the planter is vigilant and ready to apply his remedies when the insect comes. cotton plant grows readily in all sections of the Island, but not all sections are adapted to its profitable production. Experiment Station quite a number of experiments have been carried out with cotton in the use of fertilizers and the trial of different cottons from other countries and systems of cultivation. While the plant grows readily here, it cannot be recommended for sections of heavy rainfall, extending through the greater part of the year. This is not conducive to the ripening of the bolls or to their gathering and curing. Rainy weather is very apt to set in and ruin the crop, but in many sections where dry spells occur cotton can be planted during the rainy season to ripen during the dry.

Of the various fibers, sisal promises by far the greater returns under Porto Rican conditions. While other Fibers. fibers, as maguey, sanseveria and abaca, will grow in favored sections of the Island, the yields are not to be compared with those obtained from sisal. This plant, which has proved very profitable in Yucatan, grows well in various sections of Porto Rico, and its production should prove a paying industry in the dry, limestone districts of the south side. The Insular Government has, through the Experimental Station, purchased 100,000 plants for trial and is seeking to interest capital in taking up the industry in the Island. Being a crop new to Porto Rico it is difficult to interest planters in the business, especially as it requires considerable capital and it is necessary to wait three years for the first returns. Seventy-five acres have been planted to sisal, under the direction of the Experiment Station, on some Government land in an arid section of the Island. These plants are starting to grow with every promise of success. There is a great deal of land now lying idle that is valuable for this crop, and it is the purpose to make of the present planting a commercial trial. Many acres of land now nonproductive can be planted at a very low cost, it being found necessary only to cut and burn the brush, leaving a mellow and fertile seed bed.

The importation of the palm from which Panama hats are made has proved successful, and a number of plants have been distributed among the producers of this class of fiber. In order to permit the making of the higher grades of Panama hats it will be necessary to grow the plants. An important industry of hat making has been operating for several years, the raw material being imported from Colombia. That country, fearing a loss of her leading industry, has put an export duty on the raw material, thus causing the closing of the several factories located in Porto Rico.

Some progress has been made in rice growing in different sections of the Island. Certain soils that have Rice. proven to be swampy and not fitted for other crops have been turned into profitable rice fields. Again, some fields that have been devoted to cane and which, because of continuous planting to this crop have become unprofitable, have been changed to rice. It is to be hoped that this industry may be furthered in the future, as rice is the largest import of the Island, amounting to over \$1,000,000 annually. many of the cane fields, because of continuous planting to one crop, have reached a condition where it is necessary that the owner look for a rotation. Rice will be found profitable on many of these lands and at the same time give the desired change. In going into this industry, however, the grower should consider the fact that machinery must be employed in order to compete with the rice-growing sections of Louisiana and Texas, which now produce practically all the rice that is consumed here. While Porto Rico has at present a fair supply of cheap labor, yet it is not possible for labor to compete with the drill and the harvester in the production of grain.

Porto Rican families grow but few vegetables.

The home garden is usually limited to yams, yautías and sweet potatoes, since these vegetables are easily grown and practically free from disease. The common vegetables of Temperate regions are not so easily grown, are more subject to disease, and less is known as to the proper methods of growing them. The general belief is that vegetables cannot be successfully grown in Porto Rico. Results in many different part of the Island indicate that by the use of good

seed and proper cultural methods nearly all the vegetables grown in Temperate regions can be successfully grown here.

In the large cities of the Island such vegetables as beans, carrots, chard, eggplant, endive, lettuce, okra, parsley, peppers, pumpkins, radishes and tomatoes are quite frequently found in the markets, and sometimes beets, cabbage, cucumbers, onions, muskmelons and turnips; but there is no continuous supply of any of these. Most of these vegetables are of inferior quality. One of the reasons for this is that they represent simply the surplus of the home gardens within a radius of several miles of each city. They are not brought in with any regularity, but simply whenever it happens to be convenient. The business of growing vegetables for either home or distant markets is practically unknown in Porto Rico, although the market price of vegetables is good. Onions sometimes sell for 8 to 10 cents and potatoes for 3 to 7 cents per pound.

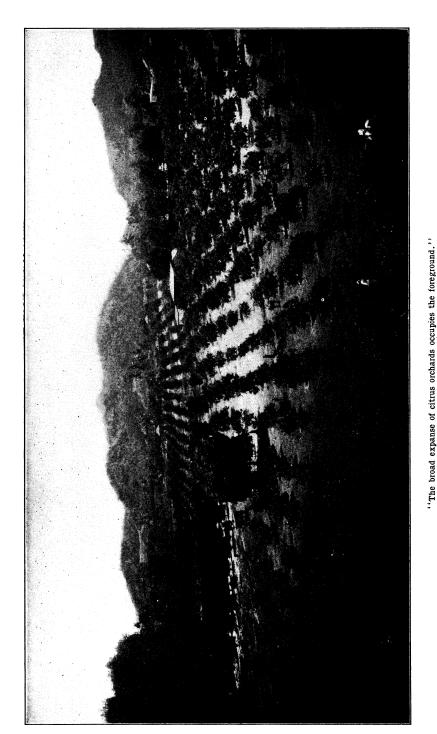
One serious obstacle to gardening in Porto Rico is the difficulty of obtaining good seed. The home-grown seed is not selected with care, and imported seed rapidly deteriorates, and within eight or ten months is practically worthless. Another difficulty is the heavy tropical rains that greatly injure germinating seeds and young plants. Plant diseases, due to a prolonged wet season, are also serious. Porto Rican homes are usually built on the hills and higher ground, where the conditions for vegetable growing are not so favorable as in the valleys. The water supply, which is nearly always necessary for successful vegetable growing, is very inadequate. Wells are practically unknown. The rain-water cistern is seldom large enough for irrigation purposes, and it is usually impracticable to carry water from the streams.

Porto Rico is naturally adapted to the growing of all Fruit. tropical fruits, and owing to its proximity to the best markets in the world this will doubtless in the future be the leading industry of the Island. At the time of the American occupation there was practically no cultivated fruit grown. From the excellence of the wild fruit found in various sections of the Island, American planters were impressed with the practicability of this line of agriculture and began to make plantings. In the last 10 years this industry has shown a remarkable development. This is best illustrated by the follow-

ing table, showing the exports of different fruits from Porto Rico since 1901:

Years.	Value.
1901	\$109,801
1902	$73,\!982$
1903	293,103
1904	433,860
1905	$255,\!895$
1906	$460,\!672$
1907	483,942
1908	1,159,427
1909	1,261,584
1910	1,635,817
1911	2,073,993

Besides various tropical fruits that have been introduced, the main line of progress has been with oranges, grapefruit and pineapples. The entire citrus group grows very readily in Porto Rico and in various sections of the Island and in different types of soil. As a rule, planters have been guided in the selection of their groves by the condition of the wild oranges growing on the land in question. Some mistakes have been made, as the work was of a pioneer nature and the conditions new. Many of our citrus growers were men who had never been in fruit growing before and, not having any experience to guide them, failed. In other instances methods that were successful in Florida were found totally wrong for conditions prevailing in Porto Rico. The most serious mistake was in cutting down the natural forests in which the wild oranges were growing. On the north side of the Island this has been very disadvantageous, owing to the fact that this section is swept by prevailing winds from the ocean. In many instances the planters have been compelled to laboriously put back the protecting trees that were destroyed. With everything in consideration, however, the citrus fruit-growing industry has been very successful and is more promising for the future. Planters can now take advantage of the mistakes of the pioneers in the industry and bring their groves into bearing at a much less cost and with more assurance of success than in former years. to the quality of the fruit there is no question. The flavor of the wild orange is indicative of the fact that there can be produced citrus fruits of the highest quality in Porto Rico. It is desirable, however, to produce those varieties that are more free from seeds, of a better uniform size, and of superior shipping





qualities. The various oranges of Florida and California are now grown, including the navels. All of the best varieties succeed well in Porto Rico. The question now confronting the planter is, which will best meet the market demands of the future? Our competitors in orange growing are Florida and California. They have been in the business for a longer period and are better instructed in the matter of packing and marketing. Our planters have formed an association for the study of the business and especially looking to the cooperative marketing of their product. This association is proving very successful, not only saving in the cost of marketing but getting better average prices.

The grapefruit of Porto Rico is equal to any and superior to most that reach the markets of the United States. This industry has been developed from nothing within a few years to one of our leading industries and holds great promise for the future. Our competition in grapefruit comes from Florida and Cuba. We have more favorable freight rates than Florida and no danger from freezing. We have a great advantage over Cuba in that our grapefruit enters the markets of the United States free of duty, while theirs must pay a tariff.

Pineapples is another industry that has assumed enormous proportions in a few years. Soils suitable to pineapples are rather extensive and the fruit can be grown in all sections of Porto Rico. Some very handsome profits have been made with pineapples. Being within five days of the markets of New York, we can very readily put our pineapples there whenever the prices are favorable. In case of low prices or overloading of the markets we have a number of canneries in various sections of the Island that handle the product in any amount. Usually up to date the market for fresh pineapples has been so very favorable that the canneries have failed to secure the fruit desired. The prices for green fruit are usually in excess of canned goods and the open market will be sought, but for safety, in case of a glut, the canneries afford a safe outlet.

Among other promising fruits which are under trial and will probably reach a paying basis are the mango, the banana, the aguacate, and a number of nuts and fruits from foreign countries.

The principal forage crops of Porto Rico are Forage Crops. malojilla and Guinea grasses. These are very rank growing and nutritious grasses, the former growing on the lowlands and the latter on the foothills, and

even on the mountain sides. It does not seem probable that grasses superior to these two for forage purposes can Some experiments have been made in testbe introduced. ing lawn grasses, of which Bermuda and grama have succeeded. Bluegrass thrives vigorously for a time, but soon A number of leguminous forage crops have been under trial as producers of forage and also for restoring nitrogen in the soil. Among these the cowpea is the more promising, making a very rapid growth and producing large amounts of forage. Moreover, this is a plant that not only adds nitrogen to the soil, but very greatly improves the physical condition. No serious insect or fungus pests have developed, and this crop is recommended for extended planting over the Island. shelled bean may be prepared in a number of ways, and is a very nutritious article of human food. The laborers are growing cowpeas in place of their native bean, because of the fact that the yields are much larger in amount of food. The Florida beggarweed makes only a fair growth the first crop, but the second and third crops grow very tall, thick and rank. is recommended as a soil renovator and also as a forage crop. Velvet beans make a good growth in sandy sections. grows well, and may be cut every six weeks or two months. is doubtful, however, if it is a profitable crop in a region of heavy rainfall. The malojilla and other grasses grow more rapidly during the rainy season, and it requires a great deal of work to keep the alfalfa clean. It is probable that this would be a profitable crop for drier sections and where irrigation is practised. While the yields are good, the labor necessary to keep the crop from being choked out is very great.

Pigeon peas, locally known as gandules, are grown extensively in some sections, and add very largely to the food supply of the people. The plant grows from 5 to 8 feet high, and besides affording shade also stores nitrogen.

A large, white bean, known as "sword bean," grows even in sod with rank-growing grasses. It has been planted in malojilla grass with success. In such cases it makes a better balanced mixture for hay or green forage, and also improves the soil to such an extent as to increase the crop of malojilla. It is a plant well worthy of more extended cultivation.

Live Stock.

In the quality of live stock Porto Rico stands at the head of the West Indian Islands. Formerly large numbers were exported, principally to the

surrounding islands, but this exportation has gradually diminished in value owing to the greatly increased home demands.

The following table shows the number and value of live stock exported to foreign countries:

·	HORSES AND MULES.		CATTLE.		
Year.	Number.	Value.	Number.	Value.	
1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908.	4,143 2,406 1,540 4,187 2,574 767 104	\$118.694 64,930 32,114 101,405 73,917 22,329 6,586 17,270	12,829 13,357 11,273 13,110 8,185 7,161 215	\$457,938 354,065 291,650 316,131 206,655 150,679 4,071 600	

Exports of Porto Rican live stock.

The native horses are small but possess much stamina.

Horses. They are practically all of a saddle type and go very easy gaits, the most common of which is a racking pace. Some of them, however, possess more stylish action. One gait is especially attractive, a fast rack with the high forefeet action of a hackney. Horses possessing this gait are in demand and command high prices.

Some very good results have been obtained by several breeders in crossing imported saddle, gaited and trotting bred stallions on native mares, with material increase in size.

Practically no horses are used for working in the fields, as they average too low in weight for that purpose, the greater number being probably under 800 pounds. Many horses are unsound. A very common defect easily noticeable is a kneesprung condition. It results, probably, from being ridden too young and general hard usage on the macadam roads. Native mules are also below the size to be used profitably for working in the fields. They are used mostly for pack animals. In hardiness they are the equal of native horses. By breeding American jacks to crossbred mares of good size some mules, now about yearlings, have been obtained which promise to be of good size.

The keep of horses and mules costs much less than in the United States. Horses receive two pounds each of oats per day with malojilla grass for roughness. Mules, which are constantly worked on the road and in the fields, receive three pounds of oats daily with malojilla grass. This is less than one-third the

amount of grain that would be fed to mules and horses of the same size in the United States.

The characteristics and merits of Porto Rican cattle have been sufficiently described. Formerly large num-Cattle. bers of cattle were exported, principally to Cuba for work in the cane fields. This trade has fallen off to less than half since 1901. The consumption of meat on the Island has doubtless grown with the increased prosperity, and the extension of the sugar-cane planting has taken a great many cattle for working purposes. In Porto Rico cattle are considered first as beast's of burden, and they have been selected and bred with the object of producing work animals. Now mules are supplanting cattle to a certain extent, while meat and milk products have increased in value. To help supply the latter products cold-storage meats and tinned milk, cream and butter are imported from the United States. Porto Rican cattle have a splendid physique, and by selecting and breeding with a definite end in view doubtless earlier maturity could be obtained and their milking function greatly increased. It is a question whether it is best for a planter to improve his cattle by careful selection of native stock or by the importation of improved breeds. If the tick fever occurs on the Island it is in a mild form, and cattle can become acclimated without severe losses where due care is practiced. On the other hand, the ticks are very fond of the long-haired imported cattle, and it takes constant and unremitting care to keep these insects from sucking the blood to such an extent as to produce an emaciated condition in such animals. If pure-bred cattle are brought into the Island the importer should be prepared to give them the very best of feed and attention and to keep them at all times comparatively free from ticks. Unless the importer is prepared to give imported cattle good stabling, feed and water, and grooming and cleaning from ticks, he had better not bring them to Porto Rico.

Herds can probably be improved in the safest way by the importation of bulls for crossing on native cows. There are a number of crossbred animals on the Island that show improved formation and probably earlier maturity by reason of the cross.

Pigs and Poultry. Island have done well where they have received proper care. Diseases are very rare among this class of live stock in Porto Rico. The method of

handling these animals in the Island is capable of much improvement. They are usually staked out near the dwelling of the owner and their feed insufficient. Pigs, more than any other class of domestic animals, thrive best with a variety of food, and especially require grass. With fenced lots and at large, pigs will thrive much better than where confined with ropes.

The prices of poultry and eggs have been on the increase in Porto Rico during the past years. All classes of poultry stand in need of improvement by the importation of the better producing breeds. Poultry will thrive in all sections of the Island with due care, but should be allowed freedom of range, should not be crowded, and should have some feed when grown in any numbers.

No serious epidemic diseases have been noted with chickens, ducks, geese, and turkeys. A disease, producing lumps on the comb and at the base of the bill on chickens, has been noticed. This seems to be a bacterial growth. Washing the heads of the fowls with a saturated solution of boracic acid gives relief.

The main watershed or divide of Porto Rico exIrrigation. tends easterly and westerly along the southern third
of the Island, with many spurs projecting northerly
toward the Atlantic and a few southerly to the Caribbean Sea.
The elevation of this divide averages about 2,000 to 2,500 feet
above the sea, with occasional peaks 3,000 to 3,500 feet. The
southern coastal plain is from 1 to 4 miles in width and about
50 miles in length; between this gently sloping plain and the
divide is the rough topography of the sharply broken foothills
and rapidly ascending southern slopes of the mountains.

The prevailing winds are from the northeast and the rainladen clouds, driven over the divide, deposit the greater portion of their moisture on the northern slopes, where the rainfall of 100 or more inches is fairly uniformly distributed throughout the year and sufficient for all needs of cultivation. The plains south of the divide have an annual rainfall averaging about 40 inches and occasional years of only 20 inches. The average rainfall is insufficient for the most advantageous cultivation of sugar-cane, which demands more water than general farming, and frequent droughts of long duration are a constant and serious menace to the crops of the southern coastal plains, the soil of which is in general very fertile. Throughout this dry zone sugar-cane is cultivated to the exclusion of all other large crops, and its scientific cultivation under improved methods is yearly increasing. A large portion of the land is controlled by wealthy companies. Practically all the water of the numerous small streams, except flood waters, has been taken up under concessions granted by the Spanish Government, and the planters have also established numerous expensive pumping plants, using coal, gasoline or producer gas for fuel, or operated electrically. The acreage cost of operating these pumps is relatively large, and their supply of water in most cases rapidly decreases during long drought periods. It has been estimated that the loss in the sugar crop alone between Patillas and Ponce, a distance of nearly 50 miles, due to the deficient rainfall of the season of 1907-08, amounted to \$4,000,000.

Recognizing the necessity of an extension of irrigation for this dry zone and the importance of utilizing flood waters which had not been stored and conserved under former concessions, the Government in 1907 made appropriations for preliminary investigations, the results of which were so favorable to the construction of an extensive irrigation system that during September, 1908, a public irrigation law was enacted creating an Irrigation Service, and the issuance of \$3,000,000 in bonds was authorized, the payment of which, under the guaranty of the Government, will be made by the lands benefited.

The proposed system, now in course of installation, is divided into the two independent eastern and western divisions, the former extending from Patillas westerly to the Salinas River and the latter from Juana Díaz easterly to the same river. The main canal, each about 25 miles in length, are located from 1 to 3 miles from the coast. The total area between the canals and the sea exceeds 40,000 acres, approximately 80 per cent being irrigable and culturable and 50 per cent actually under cane cultivation, of which only limited areas are provided with effective irrigation. The combined sources of water throughout this dry zone, including the conservation of all flood waters, are insufficient for the effective irrigation of the adjacent coastal plains, and the area irrigable by both divisions is estimated at 22,000 acres.

Preliminary investigations included the cadastral and topographic survey of about 150 square miles, or 96,000 acres, and

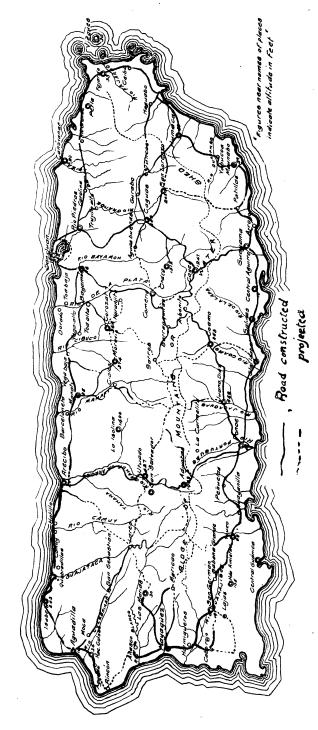


CHART IV. - Public Highways, Over 900 Miles in Extent, Comprised Within a General Road System Which Will Form a Network Over the Entire Island.



the mapping of the same on a scale of 1 inch to 1,000 feet; investigations for economical dam and reservoir sites, which in a country of such broken topography and steep slopes was a difficult problem; the location of canals, the systematic discharge measurements of streams and canals, and various studies regarding the amount of water required for the successful cultivation of cane additional to the probable rainfall.

The principal features of the eastern division are:

- 1. The Patillas Reservoir, having a capacity above its outlet of 11,800 acre-feet; that is, sufficient water to cover 11,800 acres (18½ square miles), with a sheet of water 1 foot deep. The maximum height of the dam is 132 feet; its maximum bottom width is 600 feet; its top width, 20 feet; its top length, 1,000 feet. An accessory structure is a tunnel 20 feet wide and 20 feet high, driven 589 feet through the solid rock of the adjacent hill which forms one of the dam foundations. Another accessory is a gate house with operating devices for the control of stored water and to divert it into the Patillas Canal, one of the main canals previously mentioned. Another accessory is the spillway, over which all flood water which cannot be stored by the reservoir will safely escape. The conservation of this surplus flood water is a future problem.
- 2. The Patillas Canal begins at the Patillas Reservoir and extends westerly to the Salinas River. Its capacity is 150 cubic feet per second, or 300 acre-feet per day. It is so planned that during rainy periods the discharge will be reduced and water stored for use during dry periods. The total length of the canal is about 25 miles. The bottom width of the upper portion is 8.4 feet, side slopes 1 on 1½, depth of water 4 feet, and it has a fall of 3.2 feet per mile. Appurtenant structures connected with this canal are three tunnels aggregating 3,100 lineal feet, three siphons aggregating 600 feet, and four flumes having a total length of 2,700 feet; also various spillways, outlets, drainage culverts, and about 100 bridges. Praetically all structures are built of reinforced concrete.
- 3. The Carite Reservoir and Dam, which are located on the north side of the divide, are intended to conserve the rainfall of a watershed subject to an annual rainfall of 100 inches or more and divert it through the divide to the southern slopes by means of a tunnel 4 by 6 feet in section and 3,000 feet in length. This water is discharged into one of the branches of the Guamani River and diverted by a small dam to the Gua-

mani canals, from which it may augment the waters of the Patillas Canal, be used for irrigation on adjacent lands, or be further conserved, together with flood waters of the Guamani River, by the construction of another reservoir.

The proposed dam is constructed of earth and rock, involving a total volume of 150,000 cubic meters. Its height above the bed of La Plata River is 100 feet, its bottom width 530 feet, its top width and length 20 and 500 feet, respectively. The capacity of the reservoir above its outlet as designed is 9,700 acre-feet.

4. The discharge outlet of the water stored by the Carite Dam is over 1,700 feet above the sea, from whence it will be conducted by means of a canal and pipe line to a power house, where about 750 feet of the total fall can be economically utilized and about 1,700 brake horsepower developed.

The principal features of the western division are:

- 1. The diversion dam at Toro Negro, also on the northern side of the divide, by which the discharge of the Toro Negro River, the watershed of which is subject to heavy rains, will be diverted through a tunnel 7 by 7.5 feet in section and 2,865 feet in length through the divide to the headwaters of the Jacaguas River. Another small diversion dam and a canal about 1½ miles in length will divert the waters of the Doña Juana Creek into the Toro diversion. The Toro Negro Dam will have a height of about 36 feet and length on top of 300 feet. No storage is contemplated by these works, but the normal stream flow of these favorable watersheds will be made available for power and for storage and irrigation.
- 2. The waters which will be diverted through the Toro Negro Tunnel present waterpower possibilities similar to those at Carite. The development of power at both of these projects interferes in no manner with the utilization of the water further down stream for irrigation.
- 3. The site of a reservoir having a storage of 9,570 acre-feet which will conserve the waters flowing through the Toro Negro Tunnel, and also a portion of the flood waters of the Jacaguas River, has been selected at Guayabal, a small village about 3 miles above Juana Díaz. The dam will be of eyelopean concrete masonry, extending 112 feet above the river bed. Its base will have a width of 78 feet and its top 16 feet; the length of this masonry dam on top will be 800 feet, and it will be extended by means of embankment at each end. The aggre-

gate length of the dam and embankments will be 1,590 feet. It will also be necessary to provide for a roadway over the top of the entire dam and along the west shore of the reservoir. The width of the spillway providing for the floods of the Jacaguas will be 650 feet.

4. The Juana Díaz Canal, the main canal of the western division, will convey the stored waters of the Guayabal Reservoir to the fields to be irrigated. It commences at the dam, continuing southerly to Juana Díaz, and thence easterly along the upper part of the coastal plains practically to the Salinas River, a total distance of about 25 miles.

Appurtenant structures to this canal will include several river crossings and be similar to those of the Patillas Canal, except that the maximum capacity of the canal is designated for a flow of 100 cubic feet per second.

The entire project will probably be completed during 1913.

CHAPTER IX.

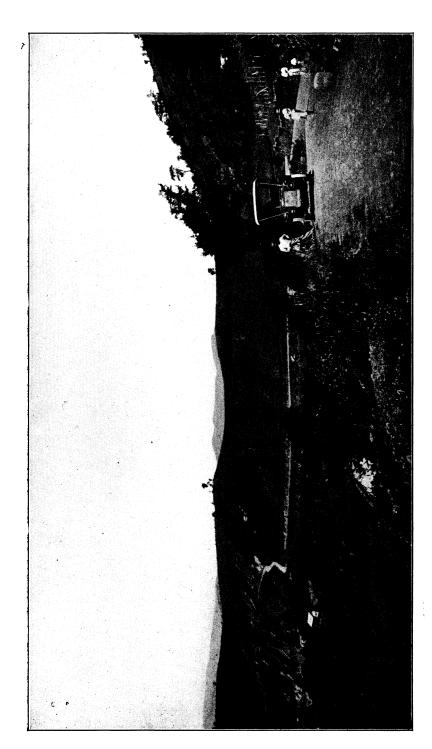
BUSINESS FACILITIES.

Highways, Railroads, Steamship Lines, Express Service, Postal Service, Telephone, Telegraph, Cable and Wireless Service; Banking Institutions; Corporations.

S the Island is but about 36 miles wide by 100 in length, and no point in it is more than 18 miles distant in a straight line from tide water, the problem of transportation in Porto Rico is comparatively simple, and the mountainous character of the Island, necessitating the expenditure of considerable money for the construction of lines of transportation to the interior, is the principal difficulty encountered. problem received the early attention of the Spanish Government. which up to the time of American occupation, in 1898, had constructed some 170 miles of excellent highways, the principal one being that extending across the Island from San Juan to Ponce, known as the Military Road. Additional roads of macadam, aggregating approximately 800 miles, have been completed since American occupation. These highways, extending to all parts of the Island, supplemented by less expensive wagon roads and trails, which are gradually being improved, constitute a road system that will, when completed, afford suitable transportation to every point. These highways are especially adapted to automobile travel, and several companies are operating regular lines for passengers and freight between the principal cities. is still, however, a large amount of travel and hauling done by coaches and primitive ox carts or by mule trains, although these methods have been replaced to some extent by the quicker and more satisfactory passenger and freight automobiles. are now approximately 700 automobiles in operation, 40 per cent of which have been put into use during the past year; and, owing to the mountainous character of the interior and the excessive grades, the latter is without doubt the means by which the bulk of the passenger and freight traffic will in future be handled in the interior, the railway lines being confined to the coastal plains.

Railways.

A steam railway operates along the north coast from Carolina, by way of San Juan, through Arecibo, to the western end of the Island, and south by way of Mayagüez and Ponce to Guayama, thus making the circuit of the Island about four-fifths complete.



Excellent highways, suitable for automobiles, extend to all parts of the island.



This system serves all the territory along the north coast from Carolina to the western end of the Island and on the south coast around to Guayama. Many short branches tributary to this road have been installed in different parts of the Island to afford transportation between the main line and sugar "centrals" and other centers of industry. The main lines embrace those of the American Railroad Company of Porto Rico, the Central Fortuna lines and the lines of the Ponce and Guayama Railroad Company, aggregating in all 440 kilometers. public service railroads of the Island are those of the Fajardo Development Company, from Mameyes to Naguabo, 40 kilometers: Vega Alta Railroad, Dorado to Vega Alta, 11 kilometers; Humacao Railroad, Humacao Playa to Humacao, 11 kilometers; Bianchi Railroad, Añasco to Altosano, 11 kilometers; Caguas Tramway Company, Río Piedras to Caguas, 29 kilometers; and the Bayamón Railroad, from Cataño to Bayamón, 5 kilometers in length. The Fajardo Development Company's line from Mameyes (a town about 6 miles east of Carolina) to Naguabo will, when completed, probably form a part of the general belt line around the Island. The other railways cater chiefly to local traffic in the respective localities, with the exception of the Caguas Tramway Company, from Río Piedras to Caguas, and the Humacao Railroad, from Humacao Playa to Humacao.

Steamship Lines.

Ocean transportation facilities are of even more importance to an Island like Porto Rico than land transportation. The following 13 lines of vessels maintain communication between Porto Rican and other ports:

New York and Porto Rico Steamship Company.

Red "D" Line.

Empresa de Vapores Cubanos de Sobrinos de Herrera (Herera Line).

Insular Line.

Compañía Trasatlántica de Barcelona.

A. H. Bull Steamship Co.

Compañía Trasatlántica de Vapores de Pinillos, Izquierdo y Compañía.

Compañía de Vapores de A. Folch y Compañía.

Compagnie Génerale Transatlantique.

Hamburg-American Line.

La Veloce Navigazione Italiana a Vapore.

The Houston Line.

The Benner Line.

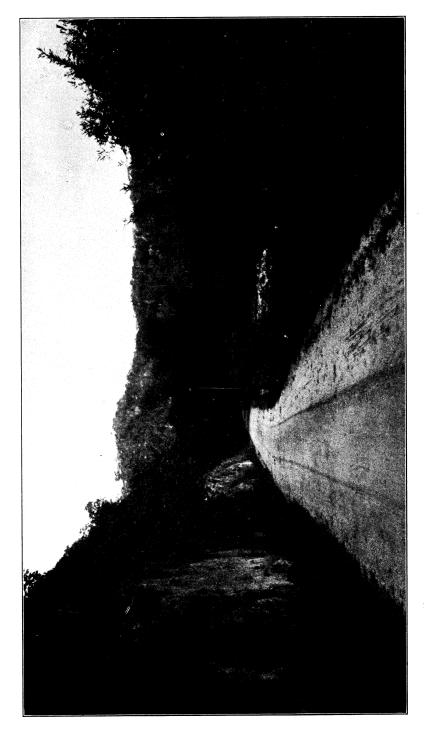
The principal passenger and freight lines between Porto Rico and ports on the mainland of the United States are the New York and Porto Rico, the Red "D," and the Insular lines.

The New York and Porto Rico Steamship Company maintains a direct weekly service between New York and San Juan by means of the steamers Carolina, Coamo, and San Juan, which leave New York at noon Saturdays and San Juan at 5 p. m. Wednesdays. This company also operates the steamship Ponce for passengers and freight and the Berwind and Massapequa for freight between New Orleans and Porto Rico, with sailings three or four times a month, according to the amount of business, as well as a monthly service from Galvestion by the steamship Pathfinder. In addition to the service between Porto Rico and the United States, this company maintains an Island service for the carrying of freight to ports along the coast where steamers from the United States do not call.

The Red "D" Line operates five steamers between New York, Porto Rico, Curacao and Venezuela, the steamships Caracas and Philadelphia carrying both freight and passengers from New York to San Juan, and proceeding thence to Curacao, La Guayra, Puerto Cabello, and touching at San Juan on the return trip. Many passengers take advantage of these steamers to visit not only Porto Rico, but the Island of Curacao, a Dutch colony, which has been described as a fragment of Holland floated across the Atlantic; Puerto Cabello, and other cities in Venezuela.

The Insular Line has at present four steamers, the S. V. Luckenbach, Harry Luckenbach, Julia Luckenbach, and Lyra, plying regularly between New York and Porto Rico, maintaining a weekly schedule. This company during the sugarshipping season usually operates, in addition to the vessels mentioned, several other steamers. The vessels operated by this company are, with one exception, for cargo only, and handle goods on through bills of lading in connection with various New York lines between Porto Rico and any point in the world, either in bond or as general cargo.

The vessels of the Spanish Transatlantic Company (Compañía Trasatlántica de Barcelona) touch at San Juan en route from Spain to Santo Domingo and Central America, as well as on the return trip, about the 28th of each month, offering



"The mountainous character of the country is the principal difficulty encountered" in the construction of highways.



direct connection between Porto Rico, Caribbean ports and Europe. The route of these vessels is from Genoa, Italy, thence to Barcelona, Málaga, Cádiz, Las Palmas, Teneriffe and La Palma, Spain; San Juan, P. R.; Havana, Cuba; Port Limón, Costa Rica; Colón, Panama; Barranquitos, Curacao, Puerto Cabello and La Guayra, Ponce and San Juan, and returning thence to Genoa by way of the above-mentioned Spanish ports.

The transatlantic steamships of Pinillos Izquierdo & Co. and those of A. Folch & Co. usually call at San Juan once a month. Their voyages begin at Barcelona, thence to Mallorca, Torrevieja, Alicante, Valencia, Málaga, Cádiz, Canary Islands, Vigo and Coruña, Spain; San Juan, Mayagüez, and Ponce, Porto Rico; Santo Domingo City; Santiago, Havana, Nuevitas, and Cienfuegos, Cuba; Vera Cruz and Progreso, Mexico; New Orleans, La.; and thence to Barcelona.

The steamers Quebec and Montreal, of the French Transatlantic Line (Compagnie Générale Transatlantique) make semimonthly calls at San Juan on voyages which begin at Havre, thence to Bordeaux, Coruña, Spain; St. Thomas, D. W. I.; San Juan, P. R.; Puerto Plata, Cape Haiti, Port-au-Prince; and thence return to Europe by way of Cape Haiti, Puerto Plata, and Sánchez, D. R.; San Juan, P. R.; and St. Thomas, D. W. I. The steamers Salvador and St. Domingue, of this company, whose voyages are confined to points in the West Indies, begin their trips at Fort de France, proceeding to Pointe-á-Pitre, Basse Terre, St. Thomas, Ponce, Mayagüez, Santo Domingo, Jacmel, Port-au-Prince, and thence upon the return trip to Fort de France via Petit-Grava, Jérémie, Santiago de Cuba, Les Cayes, Jacmel, Santo Dominge, Mayagüez, Ponce, St. Thomas, Basse Terre, and Pointe-á-Pitre. Trans-shipments are made from the transatlantic steamers to those plying in the West Indies to all points at which the latter vessels touch.

The Hamburg-American Line maintains a regular monthly service between the West Indian island of St. Thomas, Porto Rico, Santo Domingo, Haiti, and Jamaica, by means of the steamship *Praesident*. This steamer carries both passengers and freight, and travelers on Hamburg-American steamers from the United States and Europe often take advantage of this interisland steamer to visit ports in the West Indies at which other vessels of that line do not touch.

The steamship Julia of the Cuban Line (Sobrinos de Herrera), calls once on the outward-bound trip and once on the return each month in a service maintained between the principal ports of the Island of Cuba, the Republic of Santo Domingo, and the Island of Porto Rico, carrying both passengers and freight, and connecting at different ports at which it calls with lines operating to other points in the West Indies, South and Central America, the United States and Europe.

Among other transportation lines the boats of which maintain a service with Porto Rican ports is the Italian Line (La Veloce), with a freight vessel calling at San Juan about the 6th of every month for cargoes of coffee for points on the Mediterranean Sea: the Larrinaga Line: the Saint Line; and the Barber Line steamers, plying between South American ports and Porto Rico; the Houston Line; the Norten Line, operating between Montevideo, Trinidad, Porto Rico, Cuba, and New York; and the Benner Line. The last maintains a regular bi-monthly freight service by means of sailing vessels between New York and San Juan, in addition to other vessels making calls once or twice each month at Ponce, Mayagüez, and other ports of the Island. company maintains the largest fleet of sailing vessels engaged in a regular service in the world. One of these vessels which calls at Porto Rican ports, the schooner Fuller Palmer, has a capacity of 5,500 tons.

Various steamers operating between New York and San Juan afford a semiweekly mail service with the United States, and there is a probability that this service will be further improved in the near future.

The possibilities in the line of the future development of Porto Rican ports as places of call are worthy of consideration. The harbor at San Juan is safe and commodious; and since the appropriation by the United States Congress under the Act of March 2, 1907, of funds for its improvement the dredging and extension of anchorage ground has been gradually progressing. Porto Rico is almost directly in the line of the routes between Mediterranean and other European ports and the Panama Canal, while the course of vessels plying between South American and Atlantic ports of the United States lies through the Mona Passage, within sight of Porto Rico. The distances between San Juan and European, North American, Caribbean, and South American ports are shown by the following table:

Distances between	San Juan	, Porto	Rico, a	and	specified	North	American	and
		Europe	ean poi	rts.				

San Juan to—	Nantical Miles.	San Juan to—	Nautical Miles.
North American ports:		European ports:	
Halifax	1,594	Liverpool	3,599 3,812
Boston New York	$\frac{1,485}{1,407}$	London (via Plymouth) Hamburg	5,61. 4,13
Philadelphia	1,372	Antwerp	3,86
Baltimore	1.377	Havre	3,65
Sayannah	1.164	Bordeaux	3,64 3,37
Galveston New Orleans	1,702 1,539	GibraltarGenoa	4.230
Vera Cruz	1.772	Naples	4,349
Colon (Panama)	1.004		
Habana	981		

Express Service.

An important adjunct to the transportation afforded by steamship companies is the service maintained by the express companies in Porto

Rico. Of these there are the Porto Rican Express Company and the Consolidated Express Company. The former operates within the Island, under contracts, over the lines of the American Railroad Company of Porto Rico, the Ponce and Guayama Railroad Company, the San Juan Light and Transit Company, and the Caguas Tramway Company, shipments to and from the States being forwarded by the steamers of the New York and Porto Rico Steamship Company and the Red "D" Line. It maintains offices in the principal towns of the Island.

The Consolidated Express Company represents in Porto Rico the Cuban and Pan-American Express Company, the United States Express Company, Wells, Fargo & Co., the American Express Company, Messrs. Pitt & Scott, Downing's Foreign Express, and Austin Baldwin & Co., as well as several other forwarding concerns of the United States. The company maintains offices in San Juan, Ponce, Mayagüez, and Guayama, and its connections, as well as those of the Porto Rican Express Company, enable them to handle shipments between points in Porto Rico and all parts of the world.

Postal Service. The postal service and railway mail service in Porto Rico is maintained by the Post Office Department of the United States. Post offices throughout the Island, with few exceptions, receive daily mails, and a great number of them twice daily. The arrangement of mail schedules between different places is intended to permit clese connections at all points and form a chain of direct connections around the entire Island and over the military

roads from San Juan to Ponce and Arecibo to Ponce. The principal railway lines around the Island are provided with fully equipped railway mail cars and mails are distributed en route by railway postal clerks. In addition to the mails distributed on trains, closed-pouch dispatches are made between the larger post-offices situated on the lines. Connection with points not reached by railways is afforded by a star-route service, over which mails are carried by automobile and such other means of transportation as are available.

Regular mails between Porto Rico and New York are received and dispatched twice each week under contracts between the Post Office Department and two of the steamship companies operating between those two ports. Under the existing agreement these companies carry mails on all steamers operated by them by which advantageous dispatches can be made. The four vessels which run under regular schedule are equipped with facilities for handling and distributing mail en route. Thus mails arriving in San Juan can be immediately forwarded to other points in the Island, and Ponce and other principal cities may receive their mail within fifteen hours after the arrival of the steamer at San Juan.

At the time the United States Government took possession of Porto Rico there was in Telegraph Service. the Island a telegraph system, owned and operated by the Government, which extended to every town in the Island, and even the smallest villages. The system was in a bad condition of repair and was so inefficiently operated that it was often found more convenient to transmit messages by mail rather than by wire. This system was practically destroyed by the hurricane of August 8, 1899, and was partially replaced by a modern system installed by the United States Signal Corps, which was transferred to the Insular Government on February 1, 1901. The service is now in charge of the Bureau of Insular Telegraph of the Department of the Interior. It maintains 37 telegraph stations throughout the Island, which communicate with and transmit messages over telephone lines to other towns, so that the system of communication by wire affords either direct communication, or in a few instances, for short distances, by messenger, with every municipality in the Island.

The telephone systems of the Island, with the exception of an inter-departmental system operated by the Government in San

The Porto Rico Juan, are maintained by private concerns. General Telephone Company is the operator under franchise of long-distance telephone lines extending to and between the following towns, beginning at Carolina and extending through the northern coast towns to Hormigueros on the west: Carolina, Trujillo Alto, Río Piedras, San Juan, Cataño, Bayamón, Toa Baja, Toa Alta, Corozal, Dorado, Vega Baja, Vega Alta, Manatí, Barceloneta, Arecibo, Hatillo, Camuy, Quebradillas, Isabela, Aguadilla, Aguada, Rincón, Añasco, Mayagüez, and Hormigue-Local systems are maintained in nearly all of the towns mentioned. The service in San Juan and its suburbs is operated by the same company under a Spanish grant. The same is true of the local service in the city of Mayagüez. The total distance covered by the above-mentioned trunk lines between Carolina and Hormigueros is approximately 275 kilometers.

The South Porto Rico Telephone Company is the holder of a franchise under which it operates long-distance lines aggregating about 220 kilometers in length, commencing at Hormigueros and extending through the following south-coast towns to Arroyo on the east, with branches to Juana Díaz and Coamo: Hormigueros, Peñuelas, Guayanilla, Yauco, Guánica, Lajas, Sabana Grande, San Germán, Santa Isabel, Guayama, and Ponce, in all of which towns local exchanges are maintained. This same company operates the local telephone service in Ponce.

Cable Service. Porto Rico has been in cable communication with the rest of the world for many years. A submarine cable service is maintained by the West India and Panama Telegraph Company (Limited), over the lines of which communication is afforded between the Island of Porto Rico and all other parts of the world by means of the following connections:

ROUTES TO UNITED STATES AND EUROPE.

Normal route.—Via Havana, by lines of West India and Panama Telegraph Company (Limited), Cuban Submarine Telegraph Company (Limited), Western Union Telegraph Company, and Atlantic cables (to Europe).

Alternate routes in event of interruption of normal route.—Via Jamaica, by lines of West India and Panama Telegraph Company (Limited), Direct West India Cable Company, Halifax and Bermudas Cable Company, Postal Telegraph Company, and Atlantic cables (to Europe).

Via Santiago or Guadeloupe, by lines of West India and Panama Telegraph Company (Limited) and Compagne Francaise des Cables Telegraphiques and their connections.

ROUTES TO CENTRAL AND SOUTH AMERICA.

Via Havana and New York, by lines of West India and Panama Telegraph Company (Limited), Cuba Submarine Telegraph Company (Limited), Western Union Telegraph Company, and Central and South American Telegraph Company.

Via Havana and New York-London, by lines of West India and Panama Telegraph Company (Limited), Cuba Submarine Telegraph Company (Limited), Western Union Telegraph Company, and Atlantic cables.

Via Colon, by lines of West India and Panama Telegraph Company (Limited) and Central and South American Telegraph Company.

Via Santiago de Cuba or Guadeloupe, by lines of West India and Panama Telegraph Company (Limited) and Compagne Français des Cables Telegraphiques and their connections.

POINTS OF CONNECTION WITH OTHER CABLE COMPANIES AND NAMES OF CONNECTIONS.

At Santiago de Cuba, by lines of Cuba Submarine Telegraph Company (Limited) and Compagne Francais des Cables Telegraphiques.

At Kingston, Jamaica, by lines of Direct West India Cable Company.

At Colon and Panama, by lines of Central and South American Telegraph Company.

At Guadeloupe, by lines of Compagne Française des Cables Telegraphiques.

With the exception of the Jamaica-Colón section and the Trinidad-Demerara, section, the West India and Panama Telegraph Company's system is duplicated throughout, so that in event of an interruption in one section communication can be maintained through one of the others; in case of interruption of the Trinidad-Demerara section communication is kept up by means of wireless telegraphy.

Stations are maintained by the company at the following places:

Santiago de Cuba.
Kingston, Jamaica.
Holland Bay, Jamaica.
Colon.
Panama.
San Juan, P. R.
Point-a-Pitre, Guadeloupe.
Dominica, W. I.
St. Lucia, W. I.
St. Vincent, W. I.
Barbadoes, W. I.

Ponce, P. R.
St. Thomas, D. W. I.
St. Croix, D. W. I.
St. Kitts, B. W. I.
Antigua, B. W. I.
Basseterre, Guadeloupe.
Granada, W. I.
Port of Spain, Trinidad.
San Fernando, Trinidad.
Demerara, South America.

The total length of the company's line is 4,560 miles.

Wireless. By means of the wireless-telegraph station maintained in San Juan by the United States Navy communication with vessels at sea, with Santo Domingo, Key West and other points, when static conditions are favorable, is also possible.

The majority of the banking business in Porto Rico is Banks. performed by nine recognized banking institutions. In addition to the business carried on by these institutions there are a few concerns throughout the Island which, following an old custom of Spanish commercial houses, still perform certain functions usually confined in other countries to banks. The recognized banking institutions are the Bank of Porto Rico, the Banco Territorial y Agrícola, the American Colonial Bank of Porto Rico, the Crédito y Ahorra Ponceño, the Caja de Economías y Préstamos de San Germán, Banco Popular, San Juan, The Royal Bank of Canada, which, on September 17, 1910, took over the business of the Unión Bank of Halifax, and the Bank of Nova Scotia, which commenced to do business in Porto Rico November 16, 1910.

The Bank of Porto Rico (formerly known as the Banco Español de Puerto Rico) was organized under a Royal Decree in 1888, the change in name later having been authorized by special resolution of Congress. The bank had the power of issuing its own notes conferred upon it. It is required to secure the circulation of these notes, as well as all sight deposits, by the maintainance of a special reserve fund equal in amount to the total value of such deposits and notes in circulation. reserve not less than one-third must be in cash and the remainder in notes of preferred guaranty and sure collection, running not more than 120 days. Owing to the special privilege enjoyed by this bank, its chief executive is appointed by the Governor of Porto Rico, although his compensation is paid by the bank. changes in the bank's by-laws must receive the approval of the Insular Government.

The Banco Territorial y Agrícola was organized under the general provisions of the Code of Commerce on July 2, 1894, for a period of seventy-five years. Its organization follows closely that of the Crédit Foncier, of France, and its business is largely confined to long-time loans secured by first mortgages on real estate.

The American Colonial Bank was organized under the laws of the State of West Virginia on April 5, 1899, since which date

it has been doing a general commercial banking business in San Juan and, through its agencies, in other parts of the Island.

The Crédito y Ahorro Ponceño was organized on February 8, 1895, and in addition to a general banking business conducts a savings department.

The Caja de Economías y Préstamos, of San Germán, and the Banco Popular, of San Juan, confine their operations chiefly to savings-bank business for the receipt of small deposits.

The Royal Bank of Canada, a branch of the institution of that name, incorporated under the laws of the Dominion of Canada, commenced to transact business in the Island of Porto Rico June 28, 1907. It does a general banking business, and has recently enlarged the scope of its transactions by the purchase of the assets of the Porto Rican branch of the Union Bank of Halifax, which had been engaged in business in the Island since July 30, 1906.

The statement covering the transactions of these banking institutions during the fiscal year 1910–11 shows their total resources in 1911 to have been \$18,644,384.12, an increase of 42½ per cent over those at the end of the fiscal year 1909. The deposits, cash resources, and totals at the end of the past three years, as shown below, indicate to some extent the rapid but healthy increase in business that has occurred during that period:

	June 30. 1911.	June 30, 1910	June 30, 1909.
Cash resources		\$5,613 497.62 11,081.383,54	\$5,215,057 18 7,860,658,69
Total resources	18,644,384 12	16,694.881.16	13,075,715.87

From \$5,215,657.13 cn June 30, 1969, cash resources had grown on June 30, 1911, to \$6,091,469.51, and deposits from \$7,860,658.69 to \$12,552,914.61. Operations and cash on hand shown by the reports of these institutions, and which do not embrace the transactions of commercial houses, indicate more money in the Island and a larger circulation at the present time than ever before.

The Bank of Nova Scotia, organized under the laws of the Dominion of Canada, established a branch in San Juan, P. R., November 16, 1910.

Although there is no banking law in force in Porto Rico, the Treasurer of the Island, under the general revenue laws, exercises certain of the powers of a bank examiner and requires regular reports from these institutions showing their financial status, and also causes special examinations of their condition at such times as he deems necessary. A statement of the condition of these institutions at the close of business June, 1911, will be found on another page of this publication.

The provisions of the Civil Code of Porto Rico, under which foreign and domestic corporations engaged in business in the Island are controlled, are modeled after those of the State of New Jersey, and do not differ in general from other corporation laws in the United States, although they have been formed so as to meet local conditions.

The local statutes provide that before a corporation or joint stock company organized under the laws of any State of the United States, or of a foreign country, can engage in business in the Island it must file a duly authenticated copy of its charter or articles of incorporation in the office of the Secretary of Porto Rico. It is at the same time required to furnish a statement, verified by the oath of the president and secretary of the corporation and attested by a majority of the board of directors, showing (1) the name of the corporation and the location of its principal office or place of business within the Island; (2) the amount of its capital; (3) the amount of its capital stock paid in, in money; (4) the amount of its capital stock paid in in any other way; (5) the extent of the assets of the corporation and of what they consist; (6) the amount of its liabilities and, if any, the amount of the indebtedness secured and nature of security. Such corporations are required to pay fees for filing copies of charters at the rate of 15 cents for each \$1,000 of authorized capital stock; 20 cents per hundred words for recording charter; \$5 for filing and recording certificate of consent to be sued and appointment of agent; and \$3 for the issuance of the certificate of corporate existence.

Domestic corporations may be organized in accordance with the provisions of the Civil Code and are required to file with the Secretary of Porto Rico articles of incorporation similar to those of foreign corporations. The cost of filing the articles of domestic corporations are for each \$1,000 of authorized capital stock, 15 cents; for recording, 20 cents for each hundred words; for issuance of certificate of existence, \$3.

The legislature, under date of March 9, 1911, enacted a law entitled "An Act to incorporate associations not for pecuniary

profit," under which organizations of a charitable, fraternal, religious, social, or educational nature may incorporate, and quite a number of associations have been registered under this law.

Both foreign and domestic corporations are required to file with the Secretary of Porto Rico in July of each year a full report in prescribed form. Pamphlets containing printed instructions as to the form and manner of filing articles of incorporation and rendering annual reports may be obtained from the Secretary upon application.

CHAPTER X.

POPULATION.

Density-Labor-Health Conditions, and Prevalent Diseases.

HE exceptionally equable climate of Porto Rico, free from extremes of heat and cold, is contributary to conditions that favor the development and maintenance of a dense population. The census of 1910 shows a total population of 1,118,000 inhabitants, or 310 persons to the square mile. An idea of this density may be formed by comparison with that of the most thickly populated States in the United States—Rhode Island, 508; Massachusetts, 418, and New Jersey, with 337 people to the square mile—or with that of other countries—France, 188; Germany, 280; the United Kingdom, 346; China, 266; and Japan, 311. Not only is the Island densely settled, but the population is evenly distributed, the most thickly settled portions being but slightly more than twice as densely populated as the most sparsely inhabited districts.

There are among the inhabitants many evidences of original Indian admixture, and the Carib physiognomy is occasionally apparent, although it is said that the Indians were conquered and practically exterminated by the early settlers from Europe. In the early part of the sixteenth century a large number of African slaves were introduced, and as a consequence this mixture forms an important element among the laboring classes. In the early days there was a strong demarcation between the high and low classes, but in recent years a strong middle class has been developing. Among the native planters, merchants, professional men, and others of similar walks in life are to be found many Porto Ricans of culture, education, and marked ability, pure descendants of European stock. The inhabitants generally are characterized by their courtesy and anxiety to please those with whom they come in contact, as is usually true with respect to a people who have been for a long time under the control of the Spanish Crown.

Labor. Somehow the Porto Rican laborer has in the past gained the reputation of being listless and lacking originality; but this conclusion is believed by recent and unprejudiced observers to be unjustified. It has developed that

the so-called "laziness" of which the native laborer has been accused was due to a disease, with which a large percentage of them have until recently been affected, rather than to natural disinclination. Investigation disclosed that some 90 per cent of the members of the laboring class were suffering from a parasite known as *uncinaria* (anemia, or "hook-worm" disease), which produced general depression and inability to bear exer-The discovery was made by Dr. Bailey K. Ashford, a surgeon in the United States Army, shortly after the hurricane Since that time the active compaign that has been waged against the disease has resulted in a remarkable increase in the apparent efficiency of the laboring people. other difficulty in obtaining the required degree of efficiency seems to be encountered when the men from the classes which furnish the usual supply of unskilled labor are put to work at unusual tasks. They adhere tenaciously to old methods and customs, and their assignment to unfamiliar work necessitates more or less patience on the part of their superiors in their instruction. Laborers who have for years been engaged in work in the cane fields, about sugar mills, and on other tasks with which they are familiar are highly efficient in that work. They are strong and of good build, moderate in dissipation, good-natured, and notably free from acts of treachery and malicious violence. classes of laborers range from those a little less efficient than the laborer found in the States to a class of skilled laborers equal to that of any other country. The average wages paid for labor in Porto Rico, according to data furnished by the local Federation of Labor, are as follows:

Agricultural workers.—Laborers on sugar plantations, 55 cents per day; on coffee plantations, 30 cents; on tobacco plantations, 35 cents; on fruit plantations, 40 cents per day. Some employers furnish laborers on their plantations, in lieu of cash, one meal a day valued at 10 cents, and house rent, estimated at \$1 per month.

Industria! workers.—Blacksmiths and boilermakers, \$2 per day; barbers 80 cents per day; bricklayers, engineers, carpenters, and machinists, \$1.80 per day; eigarmakers, \$1.50 per day; coopers, longshoremen, bakers, and painters, \$1.25 per day; electricians, \$1.75 per day; printers, \$1.35; tailors, \$1 per day.

Unskilled laborers, 65 cents; laundry workers, 50 cents; and teamsters, 80 cents per day.

Dressmakers, 30 cents and two meals per day; waiters and servants, 30 and 15 cents per day, with board and lodging. •

Health Conditions and Vital Statistics.

Porto Rico has always been free from epidemics of the plagues and diseases that are the terror of other tropical regions. Although the Government

health officials are entitled to due credit for the promptness with which they have acted from time to time for the purpose of checking and wiping out threatened local epidemics, the record of freedom from the general spread of infection is largely due to favorable climatic conditions, good natural drainage, and frequent cleansing by copious tropical rains. As a rule, the diseases prevalent in the Island are those resulting not from natural causes, but from unnatural conditions to which the sufferers permit themselves to be subjected, or are by force of circumstances compelled to endure.

In spite of the unusual density of population, the death rate—at present 22 per 1,000—compares favorably with any other similarly populated country, and as modern methods have improved the manner of combating disease from year to year the death rate has been gradually decreasing. The principal causes of death are tuberculosis, diseases of infants, intestinal disorders, anemia, and old age.

There is always an excess in the number of births over the number of deaths. During the past year over 37,000 births, against 24,000 deaths were recorded, which indicates a material increase in the population.

The following résume of the work performed by the health and sanitary officials during the Health and fiscal year 1909-10 will furnish some idea of Sanitary Work. what is being done by them to safeguard the public health: A total of 26,348 were vaccinated, and but few cases of vareloid occurred. The health authorities in the work of safeguarding the food supply of the people inspected 84,250 animals to be slaughtered for consumption. Veterinarians are constantly engaged in passing upon the health of animals, and food inspectors in observing the quality and condition of foodstuffs and in maintaining an active campaign against false labels and misbranding. In this work the Government laboratories are utilized for identifying disease and detecting harmful Plumbing inspectors during the year made 1.306 articles.

visits of inspection and passed upon 455 plans and 2,175 installations of plumbing.

Particular attention is devoted by a special service to the prevention and treatment of cer-Tuberculosis. tain diseases likely to occur in tropical regions, and one of those with which this service is principally concerned in Porto Rico is tuberculosis. This disease was accountable for 9.7 per cent of the deaths which occurred in 1909-10. The work of combating the disease is carried on by means of dispensaries located in different parts of the Island and a sanatorium maintained in the vicinity of San Juan. The expense is partially borne by legislative appropriation, but the active cooperation of a charitable organization known as the Anti-Tuberculosis League has done much through raising funds by subscription and otherwise, and by the personal work of its members toward enabling the health authorities to attain the results that have been accomplished. The principal difficulty that has been encountered in this work arises from ignorance on the part of the persons affected as to the seriousness of the disease, as a result of which they make little or no effort to help themselves or to apply for treatment until the disease has so far advanced as to make it impossible for them to get to the dispensaries, or, in fact, to be cured if they could do so. The plan pursued, therefore, has recently been slightly modified toward work along educational lines, with the idea of sending nurses to the people, and the distribution of literature to instruct them as to how the disease may be prevented and by simple methods often cured in its incipient stage. This, it is believed, will produce more far-reaching results than the continued expenditure of all the money available for the purpose, in the treatment of the few persons who, in the last stages, apply for help when they are beyond possibility of recovery. In conformity with this general plan, the sanatorium is utilized for the treatment of responsive cases only. Patients after being relieved or cured return to their homes throughout the Island to impart to others with whom they come in contact the benefit of the knowledge they have gained, as to how the danger of infection may be, by proper sanitary precautions, minimized and the spread of the disease prevented, or the cure of incipient cases effected by simple methods of treatment available to all.

Anemia, or "hookworm" disease (uncinariasis), is another scourge resulting from abnormal conditions Anemia. which may be corrected by proper and simple meth-This disease is known to have resulted during the past year in 1,339 deaths in Porto Rico. This figure represents, however, only the deaths reported to the authorities as having resulted from that cause and probably does not cover many deaths occurring in remote mountain regions erroneously reported as due to other causes. The presence of uncinariasis in the Western Continent, the prevalence of which is now well recognized in the Southern States, was first discovered in Porto Rico in 1900, by Maj. Bailey K. Ashford, surgeon, United States Army, and recently the commission that is engaged in the organization of a plan to combat it on the American continent sent a representative of the Rockefeller Institute to Porto Rico to observe it in the place of its discovery.

The work in Porto Rico has up to the present time been carried on by legislative appropriation. Forty-five dispensaries are maintained throughout the Island at which over 49,000 patients were treated during the past year, resulting in more than 19,000 complete cures, and the improvement of nearly 7,000 cases, which, with the other uncured cases, continue to receive attention. As a result of this campaign, the towns and surrounding barrios where formerly sufferers could be seen on every hand are at the present time practically free from the disease. There remains, however, a large number of persons throughout the remote rural sections, especially in the mountainous coffee districts, that the dispensaries have been unable to reach. servative estimate places the number of those still afflicted at not less than 300,000. Aside from the humanitarian reason for eradicating the disease, which immediately responds to and is curable by specific treatment, there is an important economicmotive for energetically pursuing the work with every means This will be appreciated when it is understood that the efficiency of laborers in the agricultural districts, among whom the disease is prevalent, is reduced at least 50 per cent by their weakened condition. In view of the subtly disastrous effects of this disease, the simplicity of the methods of prevention and cure is marvelous. As is known, infection occurs through contact of the bare feet with the earth, and can be prevented by the wearing of shoes and the sanitation of surroundings, and in case of infection the disease responds to simple and

inexpensive medication and proper nourishment. As the work of eradicating the disease in the towns is nearing completion, future efforts will be devoted principally to the treatment of patients upon plantations throughout the rural districts by means of visits at regular intervals of physicians.

CHAPTER XI.

FEDERAL GOVERNMENT BRANCHES.

District Court, Military, Naval, Customs, Postal, Public Health and Marine-Hospital Service, Weather Bureau, Immigration Service, Agriculture Station, Light-House Service.

ARIOUS executive departments of the United States Government are represented by their respective branches in Porto Rico. The Federal officials in the Island act under the orders of and report to the Federal authorities in Washington; and, although the nature of the duties of some of these representatives throws them into direct official contact with various officers of the Insular Government, the latter have no jurisdiction whatever over Federal affairs.

Under the acts of Congress Porto Rico is made a judicial district and is provided with a United District Court. States District Court. The President is empowered to appoint a district judge, a district attorney, and a marshal, each for the term of four years. The district judge appoints a referee in bankruptcy, United States commissioners, and such other officials and assistants as are necessary. Owing to the different circumstances and conditions which are encountered in . Porto Rico, Congress has slightly enlarged the jurisdiction of this court and has otherwise adapted it to meet the requirements of the Island. All pleadings and proceedings before the court are conducted in the English language. Writs of error and appeals from final decisions may be taken direct to the Supreme Court of the United States. Sessions of this court are held at San Juan, Ponce, and Mayagüez. The salaries and expenses of the court are paid from the revenues of the Insular Government, and all fees, fines, costs, and forfeitures collected are turned over to the Island.

Porto Rico Regiment. The first organization of native troops in Porto Rico following the American occupation was a battalion of volunteer infantry, formed in March, 1899. All of the officers and most of the noncommissioned officers were Americans, who were transferred for duty with this battalion from regular or volunteer regiments then serving on the Island, and its commanding officer was Maj. Lorenzo P. Davison, captain, Fifth Infantry.

Of the four companies constituting the battalion one was stationed at Mayagüez, one at Ponce, and two at San Juan. Out of material enlisted in this battalion the band was formed during the summer of 1899.

A second battalion, formed in February, 1900, was officered as was the first, but was organized as a mounted battalion, and the two were officially designated "The Porto Rico Regiment, United States Volunteer Infantry." Major Davison resigned his volunteer commission and was succeeded in command of the first battalion by Maj. William E. Almy, captain, Fifth Cavalry. Maj. Eban Swift, captain, Fifth Cavalry, was assigned to the command of the mounted battalion, and Lieut. Col. James A. Buchanan, major, Fifteenth Infantry, took command of the regiment. The First Battalion was mobilized at San Juan and the Second (mounted) Battalion took station at Henry Barracks, Cayey.

This regiment, in common with all other volunteer organizations, was mustered out of the service of the United States June 30, 1901, and was succeeded July 1, 1901, by a provisional regiment of two battalions, organized on similar lines and under the same officers. This regiment was designated "The Porto Rico Provisional Regiment of Infantry," and was held in service subject to the action of Congress.

Colonel Buchanan continued in command of the regiment until September, 1903, when he was relieved by Lieut. Col. Charles J. Crane, Eighth Infantry. Numerous changes occurred in the commissioned personnel, and on July 1, 1904, the policy of appointing Porto Ricans in the grade of second lieutenant was adopted. In December, 1903, steps were taken to dismount the Second Battalion, and in October, 1904, this change was fully effected, both battalions serving since that date as infantry.

The band and one battalion of this regiment, commanded by Maj. T. W. Griffith, Twenty-eighth Infantry, was sent to the United States in 1905 to participate in the ceremonies attending the inauguration of President Roosevelt. It left San Juan February 23, 1905, and returned March 16.

Lieut. Col. Hobart K. Bailey, Twenty-fifth Infantry, succeeded to the command of the regiment in September, 1905, and retained it until February, 1908, when he was relieved by Lieut. Col. Richard H. Wilson, Sixteenth Infantry. About this time the last of the American noncommissioned officers was discharged

and the enlisted personnel has since been composed entirely of Porto Ricans.

June 30, 1908, the provisional regiment was absorbed into the Regular Army, and while, in effect, it became the Thirty-first Infantry, its official designation is "The Porto Rico Regiment, United States Infantry."

It remains a two-battalion regiment, of which regimental headquarters, band, six companies, and the machine-gun platoon constitute the garrison of the post of San Juan and two companies the garrison of Henry Barracks, Cayey. The regiment has been commanded since February 1, 1909, by Lieut. Col. Robert Lee Howze, who had several years before served as major, First Battalion.

The Island of Porto Rico and the contiguous islands of Culebra and Vieques comprise Customs Service. what is known as the United States Customs District of Porto Rico. The district is in charge of a chief officer of customs with headquarters at San Juan, the principal port The ports of Ponce, Mayagüez, Arecibo, Arroyo, Aguadilla, Humacao, Fajardo, and Guánica are designated as subports of entry. Guánica was opened as a subport on July There is also stationed on the Island of Viegues a United States customs inspector. The customs and navigation laws and regulations of the United States have full force in Porto Rico, and no duty is assessed on domestic or duty-paid foreign merchandise shipped from the United States to Porto Rico or from Porto Rico to the United States. Nothwithstanding the great increase of trade between the United States and Porto Rico, the collections of duty on foreign merchandise entering the Island are not only equal to the collections made prior to the establishment of free trade between Porto Rico and the mainland, but have increased. For example, the total collections from all sources during the fiscal year ending June 30, 1909, amounted to \$915,021.46, and during the fiscal year 1909-10 to \$995,852.22.

This service in Porto Rico is organized and Postal Service.

operated on identical lines with that in other parts of the United States. It is, in fact, a branch of that service, maintained and controlled by the Post-Office Department in Washington. The Postmaster General is represented by post-office inspectors, who aid him in promoting the efficiency of the service, in supervising in a general way the

matters committed to his charge, and who inquire into and report to him concerning cases requiring his consideration. The responsible head of the force is the chief inspector at Washington. For convenience in handling the inspection work the territory is divided into several divisions, and Porto Rico, the States of Delaware, Maryland, North Carolina, Virginia and West Virginia, and the District of Columbia comprise the Washington division, inspectors being assigned from time to time to Porto Rico and such other sections as the interests of the service demand.

There are in operation in Porto Rico 82 post offices and 2 postal stations—1 first-class at San Juan, 2 second-class at Mayagüez and Ponce, 12 third-class, and 67 fourth-class offices.

In San Juan the office, in addition to being the one first-class office in Porto Rico, is also the principal point of exchange for mail matter arriving from or dispatched to the United States and foreign countries, although the second-class offices in Ponce and Mayagüez receive and dispatch considerable incoming and outgoing foreign mail. These principal offices, in addition to other facilities, maintain a city-delivery service. The official depository for postal funds and surplus money-order receipts for the Island and the dead-letter office is in San Juan.

Public Health and Marine-Hospital Service. The activities of the United States Public Health and Marine-Hospital Service in Porto Rico embrace:

1. Observation of, and quarantine when necessary, of both incoming and outgoing passengers and vessels.

- 2. The medical relief of American seamen.
- 3. The medical inspection of immigrants.
- 4. Physical examination for various Government services.

The headquarters of the service is in San Juan, in charge of the chief quarantine officer of the district, other stations being maintained at Ponce, Mayagüez, Fajardo, Humacao, Arecibo, Aguadilla, Arroyo, and Guánica. The Public Health and Marine-Hospital work at all of these ports is under the supervision of the chief quarantine officer, in San Juan, to whom reports are regularly made and who is consulted by mail or telegraph on all questions of importance.

Weather Bureau.

The Porto Rican branch of the United States Weather Bureau was established in Porto Rico in 1898, as a part of the West

Indian Service maintained for the purpose of securing and disseminating information regarding the formation and movement of tropical storms. A number of local stations are maintained throughout the Island, and from these the data obtained are sent to the central observation station in San Juan. This central station is under the charge of a section director of the United States Weather Bureau, who, with his assistants, compiles the data received from the local stations and reports observations regularly to the central office in Washington. He in turn receives advice from the central office of the United States Weather Bureau in Washington of any meteorological changes observed at other stations in the West Indies that may affect Porto Rico. This service is of inestimable value, not only to the maritime interests, but to fruit, tobacco and sugar-cane planters, to whom timely warnings often mean the protection of crops that otherwise would be seriously damaged.

The immigration laws of the United Immigration Service. States have full force and effect in Porto Rico and are administered by the Commissioner of Immigration, a United States official appointed by the President, and under the direct supervision of the Commissioner General of Immigration of the Department of Commerce and Labor.

There are nine ports of arrival in Porto Rico at which aliens are permitted to land. Their relative importance is in the order named: San Juan, Ponce, Mayagüez, Fajardo, Humacao, Arecibo, Aguadilla, Arroyo, and Guánica.

The office of the Commissioner of Immigration is located at 1 Tetuan Street, San Juan, P. R. The Commissioner is in direct control of immigration matters for the entire Island. There are regular United States immigrant inspectors located at the ports of San Juan, Ponce, and Mayagüez, who in turn look after the immigration matters at the minor ports of the Island whenever necessity so requires.

The immigration to the Island for the fiscal year ending June 30, 1910, showed a marked increase over the previous years, and it is noticeable that a very desirable class of aliens are immigrating to Porto Rico. During the year there were many deportations from various causes arising under violation of immigration laws, among which may be mentioned dangerous contagious diseases, children under 16 years of age unaccompanied by one or both of their parents, alien contract labor.

and persons liable to become a public charge. The Immigration Service is now fully equipped for handling immigration matters at the various ports of entry throughout the Island.

Agricultural
Experiment Station.

The first appropriation made by the United States Congress for agricultural investigation in the Island of Porto Rico was for the fiscal year ended June 30,

1901. The amount of this appropriation was \$5,000 and authorized the Secretary of Agriculture to make preliminary investigations as to the agricultural conditions of the Island, with especial reference to the establishment and maintenance of an agricultural experiment station. This report was transmitted to Congress and published as House Document No. 171, Fifty-sixth Congress, second session. It gives a summarized statement of the investigation, in which the needs for the establishment of the experiment station, the more important subjects on which the people require immediate information, and how it could best be supplied, are pointed out.

As a result of this report Congress made a second appropriation of \$12,000 for the fiscal year ended June 30, 1902, which authorized the Secretary of Agriculture to establish and maintain an experiment station in this Island, and to erect necessary buildings and provide for printing of bulletins, circulars, etc. The needs of a location were presented to the Insular Legislature in February, and a bill making immediately available \$15,000 for the purchase of a suitable tract of land for the use of the agricultural experiment station passed both Houses with very little opposition. Bids were called for in March, which were to be opened May 12. On the latter date Dr. Walter H. Evans, of the Office of Experiment Stations, who had been authorized by the Secretary of Agriculture to proceed to Porto Rico and act with the representative in charge of the station, conferred with the Governor and the Secretary of the Interior of the Island with reference to selecting a site as offered by the bids.

Twenty-three proposals were received in proper form, and the tracts that were obviously best were visited and examined with reference to their suitability for the purpose, the result being the selection of a site adjacent to the city of Mayagüez. This proposal had been submitted by the city itself, which had secured an option on a tract of land for \$19,000, the excess over the appropriation to be paid by the city. Possession of the

land was given the last week in June, and the Experiment Station removed from Río Piedras to its new site the first week in September.

The object of the station is to make a systematic study of all problems related to agriculture with a view to acquiring information which will be of practical use to the agriculturists of the Island.

While scientific investigation will always form a part of the station work, yet much attention is given to the practical side of the work. Experiments in the fields to ascertain the feasibility of introducing new crops or new practices form important lines of work. It is the policy of the station to confine most of its energy to a few well-directed lines of investigation which seem of most importance to the agriculturists of the Island. When, through trial, new and valuable crops are secured, it is the object of the station to distribute them or put the planters in the way of securing them.

As a rule, agricultural investigations are too costly for the individual to undertake. They also require training and oftentimes special and expensive apparatus which the farmer usually does not possess. In recent years, therefore, experiment stations have been established in nearly all countries, and men are employed who are fitted by special training to carry on the various lines of work for which there is a demand. Practical conclusions having been drawn from investigations, it is essential that they should be presented to the people in such form as to be clearly and easily comprehended, and this the station will attempt to do by means of bulletins, reports, correspondence and personal advice.

The members of the staff recognize that their reputation depends upon how useful they make the work of the station to the people of Porto Rico, and it is their constant endeavor to work for the uplifting of the agriculture of the Island with all the ability and means at their disposal. In order to be successful, however, it requires more than the most earnest endeavors of the station officials; it needs in addition the interest, cooperation and hearty support of the agricultural people of the Island. The results of the work of the station, as far as it permits the drawing of practical conclusions, are published from time to time, as bulletins or circulars for free distribution to the people. It is hoped that the demand for them will continue, that they will be extensively read, and that the

suggestions contained in them will be put into practice by the people. The measure of the derived benefits will depend largely upon this practical application of results.

A mailing list for the distribution of station publications is kept, and everyone interested in the work of the station is invited to send in his name, requesting that it be placed upon the list for the publications as issued.

Correspondence on subjects relating to the work of the station or the conditions and requirements of any phase of the Island agriculture is invited, and visitors are always gladly welcomed.

The Government of the United States has increased the appropriations for the maintenance of an agricultural experiment station in Porto Rico until for the fiscal year 1910–11 the sum is \$28,000. The Insular Government also, recognizing the importance of the work to the welfare of the Island, has made appropriations from time to time for special purposes and to provide buildings and equipment. In 1908 an insular appropriation of \$20,000 was made for a building to properly house the offices and laboratories of the station.

The Ninth District of the United States Light-Light-House Service embraces the Island of Porto Rico and the adjacent and other islands and stations in the West Indies ceded by Spain to the United States. Under this service the following 25 light-houses in and around Porto Rico are maintained and inspected from time to time by means of the light-house tender *Ivy*:

Location.	Height.	Visibil- ity.	Character.	Inter- vals.	Structure.
Port of San Juan	Feet. 180	Miles.	F. W. and W. Fl.		G.
Cataño Range Anegada Shoal Range	12 and 551/2		F. W F. R		Bl. and W. Bl. and R.
Cape San Juan	260	18	F. W. and R. Fl. F. W.	3 0	B and W. G. and W.
Culebrita Island Point Mulas (V. I.)		123/4	F. W F. R.		G. and R. L. B. and W.
Port Ferro (V. I.) Point Tuna	68	131/6	Flg. W. 2 W. Fls.	0 5	W. and G. D. G. and W
Point Figuras	47	12	F. W		D. G. and W W. and Bl.
Jobos Harbor	297	18 71⁄9	F. W	3 0	G. and W. B. and W.
Cardona Island Ponce Harbor Range	15 and 44 117	8	F. R		Bl. and R.
Guánica	121	18	F. W. and W. Fl.	1 0	R. G. and W. D. G. and W.
Mona Island Mayagüez Harbor Range.	231 9 and 501/2		F. W. and W. Fl. F. R.		G. and B. Bl. R. and W
Point Jiguero Point Borinquen	69 65	8 12	F. W Flg. R. and W	0 30	G. and R. R. and W.
Arecibo	120	17	F. W		W.

Note.—The visibility is calculated for an elevation of 15 feet above sea level, and is given in nautical miles. B. signifies blue. Bl. black, D. dark, G. gray, L. light, R. red. W. white. The height is in feet above sea level.

CHAPTER XII.

ORGANIZATIONS.

Religious, Social, Professional, and Commercial.

HERE are many organizations in Porto Rico formed for the purpose of uplifting the people, promoting fraternity, and fostering commerce, all working along their several lines of activity toward the common end of improving mankind and the conditions in which he lives. A few of these organizations are described in this chapter.

At the head of the Roman Catholic Church in Porto Rico is the Bishop, Right Reverend William A. Jones, O. S. A., D. D.; assisted by the Vicar General, Very Reverend Baldomero Hernández, S. T. L.; Pro-Vicar General, Very Reverend Pedro M. Berríos; and the Secretary and Notary, Reverend Carlos Ormaechea.

The Cathedral is presided over by an archdeacon, the Very Reverend Baldomero Hernández, S. T. L.; a Canónigo Lectoral, the Very Reverend Manuel D. Caneja, D. D.; the pastors, Rev. Pedro M. Berríos and Rev. P. Claudio; and the master of ceremonies, Rev. Mariano Vassallo.

In San Juan there are three canonically constituted parishes; namely, the Cathedral Parish, known as the Santa María de los Remedios, comprising the western portion of the city as far as San Justo Street; the parish of St. Francis of Assisi, with jurisdiction from San Justo Street to O'Donnell Street; and St. Joseph's Parish, comprising the northeastern portion of San Juan.

Public worship is also conducted in the following churches and chapels, which have not, however, canonical rights and privileges: St. Ann's Church, the Church of the Immaculate Conception, Cristo Chapel, and the chapels of St. Ildephonsus and Párvulos, and the City Hospital Chapel.

There are in the Island the following twelve Vicariates:

1. The General Vicariate, embracing the parishes of Santa María de los Remedios, St. Francis de Assisi, St. Joseph (in San Juan), Bayamón, Carolina, Corozal, Cataño, Palo Seco, Dorado, Guaynabo, Loíza, Naranjito, Puerta de Tierra, Río Piedras, Río Grande, San Mateo (Santurce), Sagrado Corazón (Santurce), Toa Alta, Toa Baja, Trujillo Alto, Trujillo Bajo, Vega Alta, Vega Baja; in all, 23 parishes.

- 2. The Vicariate of Aguada includes the following six parishes: Aguada, Isabela, Lares, Moca, Rincón, and San Sebastián.
- 3. The Vicariate of Aguadilla consists of one parish, of the same name.
- 4. The Vicariate of Arecibo, 12 parishes: Arecibo, Barceloneta, Camuy, Ciales, Hatillo, Jayuya, Las Floridas, La Esperanza, Manati, Morovis, Quebradillas, and Utuado.
- 5. The Vicariate of Caguas has 7 parishes: Caguas, Aguas Buenas, Cidra, Comerío, Gurabo, San Lorenzo de Hato Grande, and Juncos.
- 6. The Vicariate of Coamo, 6 parishes: Aibonito, Barranquitas, Barros, Coamo, Cayey, and Santa Isabel.
- 7. The Vicariate of Humacao, 7 parishes: Ceiba, Fajardo, Humacao, Luquillo, Naguabo, Las Piedras, and Yabucoa.
- 8. The Vicariate of Guayama, 5 parishes: Arroyo, Guayama, Maunabo, Patillas, and Salinas.
- 9. The Vicariate of Mayagüez, 6 parishes: Añasco, Cabo Rojo, Aldea Saenz, Las Marías, Mayagüez, and Playa de Mayagüez.
- 10. The Vicariate of Ponce, 7 parishes: Adjuntas, Guayanilla, Juana Díaz, Peñuelas, Ponce, Playa de Ponce, and Villalba Arriba.
- 11. The Vicariate of San Germán, 8 parishes: Guánica, Hormigueros, Lajas, Maricao, Rosario, Sabana Grande, San Germán, and Yauco.
- 12. The Vicariate of Vieques, 2 parishes: Culebra and Vieques.

Total number of parishes, 89.

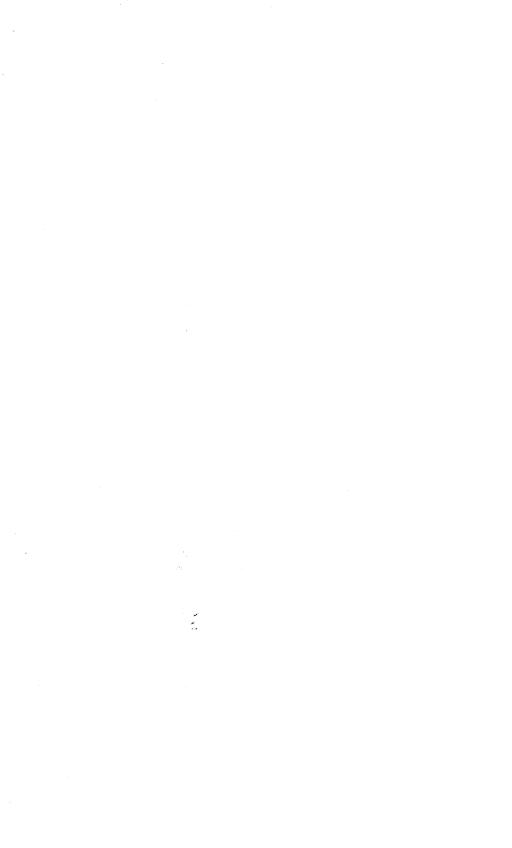
There are 18 priests in San Juan and about 120 in other parts of the Island.

To carry on the various branches of the Catholic Religious work of the church, the following religious orders are maintained in the Island:

ORDERS OF MEN: Lazarist Fathers, dedicated to parochial and missionary work, in San Juan and Ponce.

Augustinian Fathers, dedicated to parochial and missionary work, in San Germán, Cabo Rojo, Maricao, and Lajas.

College of the Sacred Heart.



Redemptorist Fathers, dedicated to parochial and educational work in Mayagüez and Puerta de Tierra.

Dominican Fathers, dedicated to parochial and educational work in Bayamón, Yauco, Isabela, Guayanilla, Guánica, and Cataño.

Capuchin Fathers, dedicated to parochial and missionary work in Utuado, San Juan, and Río Piedras.

Christian Brothers, dedicated to educational work in Colegio San Pablo, San Juan.

Orders of Women: Carmelite Nuns, dedicated to prayer and seclusion.

Sisters of Charity, 80 members, dedicated to teaching and nursing in the hospitals and asylums in San Juan, Santurce, Río Piedras, Coamo, Yauco, Mayagüez, Arecibo, San Germán, and Vega Baja.

American Franciscan Sisters, 9 members, dedicated to education in Río Piedras.

Madams of the Sacred Heart, 35 members, dedicated to teaching in Santurce.

American Sisters of Charity, in charge of a school recently opened in Mayagüez, which accommodates over 1,000 children.

Dominican Sisters, Brooklyn Province, 6 members, dedicated to education in Bayamón.

Servants of Mary, 44 members, dedicated to nursing in private homes, in San Juan and Ponce.

Sisters of the Poor, 25 members, in charge of two asylums for the aged in Puerta de Tierra and Ponce.

Mission Helpers of the Sacred Heart, dedicated to work among the poor, and deaf and dumb, in San Juan, Santurce, and Ponce.

Home of Our Lady of Good Council,
maintained in San Juan for homeless boys.
Institutions.
Immaculate Conception, maintained in
San Juan for poor women.

Kindergarten School (*Párvulos*), maintained in San Juan for the instruction of Catholic children.

Girls' Orphan Asylum, maintained in Río Piedras.

Conception Hospital, maintained in San Germán for the poor.

St. Gabriel's School, maintained in Santurge for the instrue.

St. Gabriel's School, maintained in Santurce for the instruction of deaf mutes.

The Sisters of Charity maintain three schools in San Juan, two in Ponce, three in Mayagüez, and one in each of the following towns: Yauco, Santurce, Coamo, Arecibo, San Germán, and Vega Baja.

The Franciscan Sisters, from Buffalo, N. Y., conduct schools in Arecibo and Río Piedras; while the Dominican Sisters, from Brooklyn, N. Y., maintain a school in Bayamón.

The College of St. Paul, maintained in San Juan by the Christian Brothers, of the New York Province, and the College of the Sacred Heart, in Santurce, are progressive institutions, affording educational facilities to a large number of boys and girls, and are of great benefit to the Island.

There has recently been much activity in parochial, missionary, and educational work; several priests have arrived from Spain and South America and a number of new schools have been opened.

According to the records of the churches, the Right Reverend Bishop has administered the sacrament of confirmation to 162,-000 persons during the past four years.

The interests of the church are supported and religious news and educational matter circulated throughout the Island by means of three periodicals; namely, the *Borinquen*, a monthly review published in San Juan in English and Spanish, the official organ of the local head of the church; another known as *El Ideal Católico*, the organ of the Catholic Association in Ponce; and a weekly paper published under the name of *La Verdad*, by the Capuchin Fathers, in San Juan.

Protestant Churches. The Seventh Day Adventists have missionaries in Mayagüez and Arecibo and publish one periodical.

The Baptists have 21 church houses in different parts of the Island, and 40 organized churches, with a total membership of 1,950. They maintain a school in Río Piedras for young men, and another for girls in Coamo.

The Christian Alliance has a total membership of 337, and one church building. It is carrying on work in Manatí, Barceloneta, Vega Baja, Vega Alta, and Ciales.

The Christian Church, with a total membership of 179, has one church building, and its representatives are carrying on active work in Ponce, Salinas, and Santa Isabel.

The Church of Christ has congregations in Bayamón, Dorado and Toa Baja. It maintains under its direction two orphanages, one for girls and the other for boys, located at Bayamón.

The Church of Jesus has a mission and an orphan asylum at Quebrada Limón.

The Christian Scientists maintain an organization in San Juan, and although meetings are held in Ponce, no organization has as yet been completed at that place.

The Congregational Church, with a total membership of 477, has one center of work at Fajardo and one at Humacao. It maintains a school in Santurce, and has undertaken medical work at different places in the Island.

The Lutherans have two organized churches and two mission schools. They maintain a parochial school in Cataño and a chapel in Bayamón.

The Methodist Church has 13 American missionaries in the Island and 50 native preachers and teachers. It maintains 46 church buildings and 210 congregations, with a total membership of 2,510. Medical work is carried on by it in Ponce, and it has a training school for boys and young men in process of construction at Hatillo. It supports an orphanage in Santurce and a kindergarten in San Juan. There are also other kindergartens and days schools conducted by it in other parts of the Island.

The Presbyterian Church, the strongest Protestant organization in the Island, has a total membership of 2,800, 39 organized churches, and approximately 80 congregations. In addition to medical work in Mayagüez the church maintains a large hospital in Santurce, as well as a seminary for young men and a training school for young women, also in Mayagüez. Five mission schools are maintained at different places in the Island.

The Episcopal Church has nine organized congregations and five churches in the Island. Its cathedral in San Juan is a large, modern edifice. It conducts four mission schools and carries on medical work in Ponce and Mayagüez.

The United Brethren have workers in Ponce, Juana Díaz, Peñuelas, Guayanilla, and Yauco.

Totals	OΩ	Peniel		Christian Reformed Epis-	copal	ance Methodist Epis-	Congregational Christian Alli-	United Brethren	Presbyterian	Church of Christ.	Baptist	Lutheran	copal	Protestant Epis-	
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66	1	2		ల	6		4	O1	21	6	11	<u> </u>	זכ		Number of American female missionaries.
25	:	<u>:</u>	4	: :	6	22	:	2	లు	6	2	•			Number of natives ordained workers.
189	:	22	14	υī	44	∞	∞	12	35	20	25	23	14		Number of native unordained workers.
222		:	5	ಲಾ	91	o o	9	14	39	٥ī	40	12 1	4		Number or organized churches.
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2	:	:	:	:	_	:	:	:	:	:	_				Number of boarding schools.
2,468	:	:	93	:	700	:	100	35	900	145	40	60	305		Number of pupils in schools.
6	:	<u></u>	,_	:	2	:	:	:	:	2	:				Number of orphan asylums.
లు	:	: :		:	:	:	:	:	2		:		_		Number of hospitals.
12	:	: ,	_	:	သ	:	_	:	ಹ	12	_	_ :			Number of school buildings.
110	÷	: ,			46	1		10	18	ಶಾ	21	12 H			Number of church buildings.
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240	:	ш,	4	11	83	9	9	23	ا ار ش	4	46	x -	1		Number of Sunday schools.
15,287	:	32	168	600	5,541	516	480	1,273	2.711	386	2.270	616	804		Number of Sunday school attendants.
6	_			:	<u></u>	_	i	— ,	_ :		_ :	:			Number of church papers.
7,700	2,000	: :			1.600	1,200	:	850	850	,	1.900		•		Circulation.

Mutual Aid Society of Porto Rico.

It was largely for the purpose of affording medical attendance and hospital facilities to natives of Spain who, coming to Porto Rico as strangers, became ill and had to them, that the Sociedad Española de

no family to attend to them, that the Sociedad Española de Auxilio Mutuo y Beneficencia de Puerto Rico was founded on November 19, 1882. It was officially recognized January 16, 1883.

Natives of Spain, proprietors of business establishments, were the promoters of this institution, and pay dues of \$3 a month each. They recognize their responsibility for the welfare of men they have brought from Spain to work for them, and feel it their duty to provide for them when ill. These gentlemen and other good friends of the institution have made important donations to the funds of the society, and have made possible the final construction of a modern sanatorium at Hato Rey, in the vicinity of San Juan.

The employes, who are members of the society, pay \$2.50 a month each, which entitles them to free medical treatment, surgical attendance, and hospital accommodations, no matter how many operations are required or how long confined. was inaugurated on a modest scale, but was so successful that more spacious quarters become necessary. The society maintains a medical and surgical dispensary in San Juan for its The new sanatorium in Hato Rey, near San Juan, members. was opened on January 1, 1912, is excellently situated, and is fully equipped with all modern appliances and improvements. The technical supervision is in charge of a physician in medicine and surgery, Dr. Jacobo Caldelas. The society has at present 1,220 members, and, although the greater number are subjects of Spain, there are also many Porto Rican, French, German, English, and American members.

The officers of the society, all of whom serve gratuitously, are: Avelino Vicente, president; Juan Cortines, first vice president; and José Santisteban, second vice president. The board of directors include the above-mentioned officers, together with the following: Luis Rubert, José María Lomba, Carlos Conde, Rafael Fabián, Wenceslao Bosch, Antonio Caubet, Enrique Mitjans, Miguel Targa, Dionisio Trigo, Antonio Somoza, Miguel Cuétara, Generoso Candina, Evaristo Freiría, Segundo Cadierno, Julio Teijeiro, Francisco Ortega, Joaquín Villamil, José González Padín, Joaquín Jarque, José Fernández, José López Pérez,

José Fernández Rodríguez, Alejandro Méndez, Roque González, Manuel Gómez, Ricardo Casal, Pio Pérez, José B. Portela Pérez, Benigno Fernández Pérez, Laureano Cantero.

Association of Authors and Artists.

This association, founded by Manuel Fernández Juncos, publicist and man of letters; José E. Levis, author, and other men who have distinguished themselves in

the field of art and letters, was organized in January, 1906, and duly registered in the office of the Secretary of Porto Rico on February 27 of the same year. The purposes of the organization, among others, are to promote and harmonize the interests of the members, maintain among them a spirit of good-fellowship and fraternity, establish a system of mutual aid and protection, defend them in such suits as are unjustly brought against them in the courts, secure a reduction in the necessary articles of life. and assist in the education of the orphans of deceased members. The association is represented by a commission in the principal towns of the Island. The following are the officers of the association: Dr. Cayentano Coll y Toste, president; José G. Torres, vice president; Antonio Blanco Fernández, treasurer; José B. Levis, secretary; and Conrado Asenjo, assistant secretary. The board of directors is composed of these officers and the following members: Justice Emilio del Toro y Cuevas, Luis R. Miranda, José María Lomba, Antonio Blanco Fernández, Manuel Vázguez Alayón, Rafael Balseyro, M. Martínez Plée, and Manuel The editors of the leading papers in the Island are also members of the board.

The Students' Fraternity of Porto Rico.

The Fraternidad Escolar de Puerto Rico, or the Students' Fraternity of Porto Rico, was organized in March of 1908 by men who were students

in one of the institutions for higher education existing in Porto Rico between 1878 and 1887, known as the "Instituto Civil de Puerto Rico." The membership of the fraternity is limited to those who took an advanced course of study in the Colegio de Segunda Enseñanza or the Instituto Civil de Segunda Enseñanza. The fundamental purpose of the fraternity is "complete liberty in all political and religious matters, fraternal union among all members and mutual protection." The officers and directors of the fraternity are as follows: Luís Sánchez Morales, president; Francisco Parra Capó and Jaime Annexy, vice presidents; Felipe Cordero, secretary; Rafael Castro Gonzá-

lez, treasurer; Ramón Córdova, Arturo Rodríguez Aguayo and Antolín Nin Martínez, directors. The district representatives are: Pedro de Aldrey, San Juan; Félix Santoni, Arecibo; José Lacot, Ponce; Julio Guzmán, Humacao; Joaquín Cervera Silva, Mayagüez; Francisco Sein y Sein, and Tomás Bernardini de la Huerta, Guayama.

The American National Red Cross Society is represented in Porto Rico by a branch organized through Red Cross the efforts of Brigadier General George W. Davis, Society. Military Governor of the Island from May 9, 1899. to May 1, 1900. The local branch is duly affiliated with the central organization and renders the prescribed reports to the principal office of the American National Red Cross Society in Washington, D. C. The local organization has sixty-eight members; its officers are as follows: Miss Margery Colton, president; Juan Hernández López, vice president; and M. Drew Carrel, secretary; and treasurer ex officio, the Treasurer of Porto Rico, Allan H. Richardson.

Anti-Tuberculosis League. The work of the Anti-Tuberculosis League was inaugurated on March 31, 1906. The principal object was at that time the establishment of sanatoriums for the treatment of

persons suffering from tuberculosis. Funds were raised by donations, benefits, and festivals. The municipality of San Juan ceded a parcel of land in Santurce, valued at \$2,000, for a sanatorium site, besides alloting the sum of \$200 a month for the maintenance of the institution. The opening of the sanatorium took place on April 1, 1907. It consisted of an administration building, and open-air wards, with roofs of solid material, floors of cement, and walls of canvas to be rolled up and permit of the free circulation of air. The sanatorium has accommodations for 58 patients. The Legislative Assembly has appropriated funds to assist the league in its work for several years. During the last three years 365 patients have been treated in the sanatorium. The league carries on in connection with its sanatorium work an educational campaign, one feature of which has been an exhibit loaned by the National Anti-Tuberculosis The exhibit was taken to nearly every town in the Island, and in connection therewith lectures were given by leading physicians on the subject of the prevention and cure of The league also distributes through the schools tuberculosis. and other channels a large amount of printed matter, explaining

what tuberculosis is and how, by scientific means, it may be prevented and cured. Dispensaries are maintained in many of the principal towns of the Island, under the control of the Tropical and Transmissible Diseases Service, for which purpose the Legislature has also allotted funds. Besides medicines, these dispensaries furnish the patients disinfectants and sanitary articles for personal and home use, the league aiding in this work by sending nurses to the homes of the poor. At the International Congress held in Washington the Porto Rican League was awarded a gold medal, and in 1909 another medal was awarded by the International Congress held in Barcelona, Spain. The officers are as follows: Mrs. Albert Norton Wood, founder, and Hon. George R. Colton, Governor of Porto Rico, honorary presidents; Miss Margery Colton, president; Dr. P. Gutiérrez Igaravídez, vice president; Edwin Grant Dexter, treasurer; M. Drew Carrel, secretary; Juan Hernández López, counselor; The board of direcand José A. Canals, consulting engineer. tors is composed of Mrs. Juan Guzmán Benítez, Mrs. Hernand Behn, Mrs. Pedro de Castro, Rt. Rev. William A. Jones, Rt. Rev. Jas. H. Van Buren, Hon. Luís Muñoz Rivera, Hon. F. del Valle Atiles, Dr. José Gómez Brioso, Hon. Roberto H. Todd, Mr. Arturo Bravo, Dr. Bailey K. Ashford, A. J. Grief, Dr. W. F. Lippitt. Dr. S. B. Grubbs, Dr. José Janer, and Dr. Gustavo Muñoz. The sanatorium is under the direction of Dr. P. Gutiérrez Igaravídez, medical director, honorary; Dr. Salvador Giuliani, visiting physician; and Dr. Marie Louise Craven, superintendent.

The Pharmacists' Association was established on September 13, 1910. The purposes of the associa-Pharmacists' tion are to defend and protect the interests of the Association. profession, to maintain a spirit of fraternity among the members, prevent the importation into the Island of inferior, adulterated or damaged drugs, and establish uniform schedules of prices. Among the purposes of the association is the publication of a monthly review devoted to all matters, scientific and otherwise, both at home and abroad, of interest to the profession. The editors of the publication are José Janer, Rafael del Valle Sárraga, J. Federico Legrand, Eduardo Dottin, José J. Monclova, Pedro del Valle Atiles, and Pedro C. Timothée. ciation will hold two general meetings annually, and one meeting every two years, in the month of September, for the election of officers. The present officers are: Rafael Monagas, president; Rafael Arrillaga, vice president; Pedro C. Timothée, secretary and treasurer; and Carmen Benítez, Ramón Alazán Vasco S. Belaval, directors. The delegates from the seven districts of the Island are: José Janer, San Juan; Julio Pérez Avilés, Arecibo; Luís Maisonava, Aguadilla; Enrique Arnaldo, Mayagüez: José A. Bruno, Guayama; Pedro Marquez, Ponce; and Avelino C. Peña, Humacao.

Medical Association of Porto Rico.

The Medical Association of Porto Rico is the first of its character in the Island. has been in existence since September 21, 1902. Its membership now embraces nearly all the physicians in Porto Rico.

The purpose of the association is to defend the interests of the medical profession, to maintain its morale on the same level with that of other countries, and to establish a place for the discussion and study of scientific and social problems, particularly those relating to pathology and hygiene in Porto Rico. association holds its regular meetings semi-annually and scientific meetings quarterly, the latter being for the purpose of presenting cases and questions of special interest and reading papers on medical topics. The officers of the association are as follows: Dr. Eliseo Font y Guillot, president; Dr. Gustavo Muñoz Díaz, vice president; Dr. Francisco Hernández, secretary; and Dr. Francisco Matanzo, treasurer. The directors include the aforementioned officers and the following, each representing a district of the Island: Dr. Manuel Quevedo Báez, San Juan; Dr. Joaquín Martínez Guasp, Mayagüez, Dr. J. Barreras, Humacao; Dr. Francisco Susoni, Arecibo; Dr. A. Ruíz Soler, Guayama; Dr. Eusebio Coronas, Ponce; and Dr. A. Torregrosa, Aguadilla.

Dental Association of Porto Rico

In organizing the Dental Association of Porto Rico the founders were actuated by a desire to promote the interests of the profession, secure legislation that would ad-

vance dentistry, and protect both the public and dentists against unlicensed practitioners and illegal practices, as well as foster a spirit of cordiality and fraternity among dentists in Porto The organization carefully guards the interests of the public and of the profession by denouncing any persons who attempt to practice without the certificate or license required by law. The work of organization began on October 22, 1907, but the Dental Association was not perfected until April 15, 1908, when the rules and regulations were approved and officers elected. Annual assemblies are held in the principal towns, where questions of a scientific and general character of interest to the profession are discussed. The present officers are the following: Dr. Manuel V. del Valle, honorary president, per vitam; Dr. Eligo F. Ross, president; Francisco Ponte, vice president; Mateo D. Fournier, secretary; and José Salgado Jiménez, treasurer. These officers, together with Dr. Emilio Chrevemont, compose the board of directors.

The Porto Rican Bar Association, known as the Colegio de Abogados, has a membership Porto Rican Bar of over 100 attorneys at law who practice in Association. the Insular courts. Under the Spanish régime it had an official character, of which it was divested with the change of sovereignty. Formerly it was obligatory upon a lawyer to enroll as a member of this association before he was permitted to practice. The colegio was created by a Royal Decree of the Crown of Spain on May 28, 1838, but it was not until July 17, 1840, that the actual work of organization began. decree embodied the by-laws which to this day govern the association. Its powers included that of reporting upon legal questions to the Government and the courts, examining into the conduct of lawyers, and defending them against any unjustified attacks or accusations. The first board of governors was composed of the senior practicing attorney. Juan Vicente de Govcoechea, Juan de Mata Aybar, Andres Avelino de Mena, and Agustín M. de Sirgado, the secretary. After the American occupation of the Island Major General Brooke issued General Order No. 20, on December 3, 1898, whereby the colegio was "reestablished in the manner prescribed by former statutes in so far as these are not opposed to the sovereignty and the Constitution of the United States." The present board of governors is composed of the senior attorney, Juan Hernández López, who became acting president upon the recent demise of Hilario Cuevillas; Manuel F. Rossy, secretary; Eduardo Acuña Aybar, treasurer; and Rafael López Landrón. The bar has an excellent library, and its prosperous condition is indicated by having in its treasury \$4,000.

Free Federation of Workingmen of Porto Rico.

Organized labor, as recognized in the United States, is represented in Porto Rico by the Free Federation of Workingmen (Federación Libre de Trabajadores), State Branch of the American Federation of Labor. Its history

as a free institution is very brief, commencing almost simultaneously with the formal establishment of the American Government in Porto Rico in 1898. The first work of organizing began on May 27, 1897, but doubts as to its legality prevented its completion until after the American occupation. At an assembly held in the Municipal Theater of San Juan, on October 20, 1898, two days after the Island formally became an American possession, the federation was duly organized. Twelve organized unions composed the federation upon its inception, and on August 24, 1900, it was officially recognized by the Insular Government. The American Federation of Labor extended recognition and affiliation to the organization in 1901 and appointed Santiago Iglesias, the founder and organizer, its representative in Porto The present enrollment of the federation shows 142 local unions having an aggregate membership of 6,400 in good stand-The federation has paid out \$34,322.40 in benefits, as follows: Unemployed benefits, \$3,688; sick benefits, \$12,290; strikes and lock-out benefits, \$13,449.58; and death benefits, \$4,894.82. A congress of the labor unions is held every year, which elects delegates to the convention of the American Federation of Labor, held annually in the United States. The local federation is governed by an executive council, composed as follows: Santiago Iglesias, president; Eugenio López Sánchez, Abraham Peña, Prudencio Rivera Martínez, Esteben Padilla, Manuel Alvarez, Alejandro Escalet, and José Ferrer y Ferrer, vice presidents; Pedro San Miguel, treasurer; and Rafael Alonso, general secretary.

The Porto Rico Association is an organization of the representative men of the Island, formed The Porto Rico with a view to concerted effort toward promot-Association. ing the commerce, industry and agriculture of The objects of the organization, as set forth in its Porto Rico. articles of incorporation, are to assist all legitimate enterprises for the development of industrial activities: to encourage business by the interchange of opinions, mutual assistance, and helpfulness among men of affairs; to assist in improving the means of transportation, both as to passengers and freight; to attract and provide accommodations for visitors, tourists, and others who may come to the Island; to encourage the investments and secure the cooperation of capitalists in Porto Rico; to compile and publish reports and statistics, general information, and advertising matter concerning the resources and advantages of the Island, and to distribute the same whenever and wherever it may

be deemed most advantageous to the country; to cooperate with other associations of a similar character, when such cooperation may advance the interests of Porto Rico; to secure and maintain markets for the different products of the Island and to assist the producer and manufacturer of Porto Rico in securing and maintaining the best prices for their products; and generally to aid in the advancement of the material well-being and prosperity of the people of Porto Rico.

The membership of the association embraces men from every walk of life who are interested in the welfare of their country and are able to afford the annual membership fee of \$10. Head-quarters of the association are maintained in the city of San Juan, while branches have been organized throughout the Island. The active work of the association is in charge of a manager in San Juan, whose whole time is devoted to its affairs. He has his place of business at the headquarters in San Juan, where a bureau of information is maintained, and to which inquiries and correspondence regarding the resources, products and advantages of the Island may be addressed.

The work of the association is carried on under the control of an executive committee consisting of 21 of Porto Rico's leading business men.

Among other things, the association has inaugurated an extensive advertising campaign through the press of the United States, and by means of printed matter for distribution through the mails and to visitors, and has adopted the following design as a seal to be placed upon all Porto Rican products, the quality and the Porto Rican origin of which are guaranteed by the association:



The officers are: Eduardo Giorgetti, president; Luis Toro, vice president; Arturo Bravo, secretary and treasurer; and Augusto Palmer, chief clerk. The members of the Executive Committee are: Hernand Behn, Jorge Bird, Carlos Conde, R. H. Delgado, José de Diego, Rafael Fabián, Eduardo Giorgetti, Charles Hartzell, José Lacot, Manuel Ledesma, X. Mariani, J. B. Merier, W. McK. Jones, Manuel Paniagua, L. Sánchez Morales, Marcelino Solá, Edmund Stevens, Luís Toro, Chase Ulman, F. M. Welty, and J. A. Wilson.

The San Juan Stock and Produce Exsan Juan Stock and Produce Exchange, which has become an important element in the commercial welfare of San Juan, was established on September 13,

The exchange was limited to 40 seats upon its inception, of which only 9 were occupied by provision merchants; but as it seemed advisable to admit all the merchants engaged in this branch of commerce, the number of seats was increased to 75. But even this increase has not been sufficient, for at this time not only is there no vacancy, but there are eight firms and several individual applications on the waiting list. The financial condition of the exchange and the future prospects of the organization are good. Controversies between merchants are adjusted by the board of arbitration. Many of the sugar dealers transact their operations through the exchange; and, although there are other sugar operators, members of the exchange, who do not conduct their business through this agency, the sales during the past year exceeded \$2,000,000. The plans for the future which are now under consideration comprehend, among other things, the acquisition of new quarters and the increasing of the space for the produce department of the exchange, the purchase of a site for the erection of an exchange building, the establishment of a benefit fund for the families of members, and the extension of the influence of the exchange to the towns of the Island, appointing committees in each important city for the purpose of treating matter arising between members of the exchange and merchants living in those towns, so that the questions involved may be submitted to the board of governors for their action. officers of the exchange are: Sosthenes Behn, president; Eduardo Giorgetti, vice president; and Sergio Ramírez, secretary and The board of governors is composed of the following: Sosthenes Behn, Evaristo Freiría, Rafael Fabián, Luis Toro, Sergio Ramírez, José M. Lomba, Faustino Suarez, Avelino Vicente, J. L. Pérez, Dionisio Trigo, and Carlos Conde.

Chamber of Commerce of Porto Rico.

It was at the suggestion of General Guy V. Henry, Military Governor of Porto Rico, that a meeting of business men was held, on May 10, 1899, at the

Ateneo in San Juan, for the purpose of founding the Chamber of Commerce of Porto Rico. A committee was then appointed to draft the constitution and by-laws, composed of the following: Jorge I. Finlay, chairman; José G. del Valle, secretary; and William Körber, Manuel C. Román, Pedro Arzuaga, Fidel Guillermety, Manuel Egozcue, F. H. Dexter, Carlos M. Soler, Henry W. Dooley, and Robert H. Todd. This work took until December 15, 1899, when a general meeting was held, the report of the committee was adopted, and the following regular officers elected for the year 1900: Andrés Crosas, president; H. B. Luce and Pedro Arzuaga, vice presidents; and Fidel Guillermety, treasurer.

The object and aim of the Chamber of Commerce is set forth in the following statement of the first board of directors, contained in their circular letter of January 1, 1900:

The Chamber of Commerce of Porto Rico proposes to defend with all energy the general interests of its members; attend, equally, to their claims; hear their complaints; adjust all questions of an industrial or commercial character which may arise between them; solicit their opinion and advice at general meetings; establish and foment commercial courses and schools; establish permanent exhibits of domestic and foreign products, and to render, in fact, all such services as contribute to the betterment and progress of the interests which it represents, stimulating and protecting in this manner the productive resources in general.

Since its organization the Chamber of Commerce has taken an active and important part in work tending to the advancement of commerce. In 1900 the chamber sent a committee to Washington to represent local conditions to the authorities there and urge free trade or a reduction in the tariff. The matter of the tariff on Porto Rican coffee exported to France received much attention in 1901, 1902, and 1903. A delegation went to the United States in 1901 to investigate commercial and industrial conditions. In 1903 it rendered a report on certain features of the Code of Civil Procedure, which was before the

Legislature. The necessity of dredging San Juan Harbor received persistent attention for several years, until the work was finally commenced. The chamber has been untiring in its efforts to better the dock, steamship, and mail service. It took part in the settlement of the stevedores' and cartmen's strike in 1905. The present officers and Board of Directors are: Ramón Valdés, president; Carlos Conde and Rafael Fabián, vice president; Sergio Ramírez, treasurer; and Harry F. Besosa, secretary; and Pedro Arzuaga, R. González Castro, Angel González, José León, Waldemar Hepp, Antonio Caubet, Henry W. Dooley, Evaristo Freiría, José M. Lomba, and Reinaldo Paniagua, directors.

This organization has been in existence for a little more than two years. It was organized primarily for the purpose of marketing and distributing Porto Rica fruit. Notwithstand-

ing the superior quality of the Porto Rican fruits, they were being marketed without advertising by persons whose chief interest lay in the sale of fruits from other sections, and the results were uniformly disastrous to the growers.

The exchange is a cooperative organization. Any fruit grower may become a member by subscribing for one or more shares of its capital stock at \$20 per share. It is not intended that investment should be made in the shares of its capital stock for profit, and its dividends are limited by its by-laws to the legal rate of interest allowed by law in Porto Rico. In order that it may at all times represent as near as may be the will of all the stockholders, the amount of voting stock held by any shareholder is limited to 25 shares.

From 20 per cent of the pineapples which constituted its initial shipment on April 5, 1910, the Exchange has grown until at the present time it is marketing about 75 per cent of the pineapples and 60 per cent of the citrus fruit shipped from the Island. The fruit of all growers is marketed at a uniform, minimum price.

Especial attention is given to the advertising of Porto Rican fruit and the distribution of it at times when the quantity is such that it tends to create a glut in any market. The marked success of the Fruit Exchange is a compliment to the sound judgment of its organizers, its management, and its supporters. The success of the fruit industry on the Island began with its organization.

The New York offices of the Exchange are located at 202 and

204 Franklin Street, and are managed by Mr. Geo. M. Kendall, an experienced fruit salesman. It also maintains, in connection with its San Juan office, at the corner of Cristo and San Francisco streets, rest and recreation rooms for the families of its shareholders and patrons, and a suite of furnished rooms wherein they may obtain accommodations when stopping in the city. This feature has proven quite popular.

The present officers and directors are as follows: H. H. Scoville, president; Edmund Stevens, first vice president; James Struthers, second vice president; C. G. Thompson, secretary; and Miss A. M. Bacon, treasurer. Directors: H. H. Scoville, Edmund Stevens, James Struthers, C. G. Thompson, C. P. Avery, E. A. Bailey, H. de H. Castle, F. E. Dyer, G. L. Elkins, A. A. English, J. D. Gillies, T. E. Heriot, N. L. Reed, and W. S. Whitehouse.

Ateneo Puertorriqueño.

The Porto Rican Atheneum was organized on April 30, 1876, in the building that it now occupies, at No. 29

Plaza Baldorioty, San Juan. The first president of the association was Mr. Francisco de Paula Acuña. The office is now occupied by Dr. Cayetano Coll y Toste.

The purpose of the Atheneum is to promote intellectual progress in the Island, and with this end in view, on April 1, 1888, courses of study were inaugurated, covering the subjects of law, engineering, medicine, physical and mathematical sciences, philosophy, and literature. When Spanish sovereignty in Porto Rico ceased the annual allowance of \$8,000 granted by the Spanish Government for the support of this work was discontinued. The Atheneum has lately inaugurated other courses of study in commercial arithmetic, bookkeeping, shortland, English, drawing, and law. The society now has about 500 members.

Portraits of prominent Porto Ricans are hung on the walls of the Atheneum rooms, lectures are delivered there from time to time, and annually competitive examinations are held in literature, science, and fine arts. The Atheneum library is one of the best in the Island.

Its officers are: President, Dr. Cayetano Coll y Toste; vice president, Dr. José Janer; treasurer, Manuel R. Calderón; assistant treasurer, Aureliano Ferrer; secretary, José de J. Esteves; assistant secretary, Enrique Camuñas; librarian, Celestino Iriarte; assistant librarian, Miguel Schettini.

Directors.--Emilio del Toro, Eduardo Neuman, Rafael Mona-

gas, Emilio M. Gorbea, Ramón Ruiz Arnau, Juan López de Goenaga.

Committee on Natural, Physical, and Mathematical Sciences.— President, Dr. Isaac González Martínez; vice president, Dr. Pedro Gutiérrez Igaravídez; secretary, Dr. Gustavo Muñoz Díaz.

Committee on Political Sciences.—President, Luis Muñoz Morales; vice president, Manuel Fernández Juncos; secretary, Luis Llorens Torres.

Committee on Literature and Fine Arts.—President, Ferdinand R. Cesteros; vice president, Manuel María Sama; secretary, Dr. Manuel Quevedo Báez.

Committee on Entertainments.—President, Rafael Balseiro; vice president, William David Noble; secretary, Francisco López Sánchez.

The Legislative Assembly of 1910 made an The Insular Fair. appropriation to cover the expense of inaugurating an annual exhibit of insular prod-General expositions had been held in Porto Rico theretofore, but for several years had been discontinued, and at that time, when every effort of the progressive interests in the Island was being bent toward the utmost development of industrial and commercial conditions, they deemed it advisable to hold each year at some central point an exposition where samples of the products of the Island might be brought together, in order to show not only the people of Porto Rico, but visitors from abroad, what the Island can produce. It has been the ancient custom to hold in San Juan during the week before Lent a celebration similar to the carnivals held in Havana and other trop-The first Insular Fair was held during that time. and the second during the week beginning December 7, 1911.

The work of organization is in control of a body known as the Insular Fair Board, composed of the Governor of the Island, as honorary president, and six other prominent officials and business men.

In addition to the exhibits of local products, the general plan includes also many attractions from abroad, such as are always found at similar expositions in other places.

Union Club. The need of a club where residents of San Juan Union Club. might unite for the purpose of promoting social intercourse was the prime motive in the organization of the Union Club. Its membership is cosmopolitan, embracing men of all nationalities residing in the Island. It was

founded in 1903 by some of the most prominent men in governmental, social and business circles, and since then the Governors of Porto Rico and other officials have figured prominently in its life. The club house is excellently located and commands a picturesque view of the ocean. It is equipped with a library, a café, bowling alley, tennis courts, stage for theatrical entertainments, and ball room. The success of the club has been such that it has outgrown its present quarters, and there is under consideration a project of either securing a new location or erecting a new building on the present site. The officers of the club are: P. H. Gorman, president; Emilio del Toro, vice president; G. A. Prahl, secretary; and Charles F. Hill treasurer.

• The City Club of San Juan was founded in The City Club. November of 1910, as a corporate body, the purpose of which is to provide a meeting place for business men, promote social intercourse among them, and maintain a café and reading rooms, conveniently located near the business center of the city, where members and their guests can go for luncheon or refreshment during the day.

Casino Español de San Juan de Puerto Rico. The Spanish social life in Porto Rico is represented by Spanish casinos or clubs in different cities in the Island, the largest of these organizations being the Casino Español de San Juan. The first movement toward

organizing the casino was taken on September 9, 1871, when Francisco B. Barceló, Pablo Ubarri and José García Polavieja petitioned Governor General Sanz for a permit to establish the The permit was granted, and on November 16 of the same year by-laws were approved, and in 1872 the followingnamed gentlemen were appointed as the first officers and directors: Ramón Fernández, Marqués de la Esperanza, president; Pedro Díaz Romero, vice president; Francisco Larroca and Bartolomé García, secretaries; Francisco Bastón, auditor: and Antonio Arzuaga, treasurer; and Marqués de Casa Caracena, Manuel Cortés, Bartolomé Borrás, Pablo Ubarri and Francisco Barceló, directors. The object of the casino is to promote union and fraternity among Spanish subjects, promote social intercourse and friendship between Spanish and Porto Ricans and other residents of the Island, establish a club house for educational and social purposes, and to aid and assist Spanish subjects when in need. The casino, from time to time, celebrates important events, the most recent being an exposition and liter-

ary and scientific competition to commemorate the fourth centenary of the colonization of Porto Rico. In connection with this celebration the casino cooperated with the Government in removing the remains of Ponce de León, the first colonizer, to the Cathedral, where a monument, the work of Miguel Blay, the eminent sculptor, was erected. For several years past the casino has maintained a class in English for its Spanish members. membership, which reaches 763, includes Spaniards, Porto Ricans, Americans, French, Germans, English, and other nationalities. The financial report of the casino for the year just closed shows an expenditure of \$15,727.16, against receipts reaching \$18,079.25, leaving a balance on hand of \$3,352.09, which, together with mortgage bonds amounting to \$5,000, makes a total balance on hand of \$7,352.09. The officers and board of directors are as follows: Antonio Alvarez Nava, president; Antonio Sarmiento and Rafael Fabián, vice presidents; José Ma. Pedreira, auditor; Bartolomé Coll, assistant auditor: Julián Simó, treasurer; Joaquín Villamil, assistant treasurer: Feo. Rodríguez Alvarez and José Pérez Losada, secretaries; Antonio Caubet, Ramón Valdes, Sr., Abelardo de la Haba, Vicente Balbás, Antonio Ma. Somoza, Pedro Bolívar, Dionisio Trigo, Pedro Castaños, Miguel de la Cuétara, Eugenio Murúa, Pablo del Río, Carlos Conde, Luis Rubert, José Ma. Lomba, Guillermo Vidal, Roque González, Gabriel Arce, and Julio Tejeiro, directors.

Casino of Ponce. prominent men of that city, in 1897. The founders, in constituting the society, had as their object a club for social entertainment and lectures or conferences of an educational character, and their purpose has been attained with much success. The organization has done well financially. Besides expending considerable money in handsomely equipping and furnishing the building it occupies, it has a satisfactory surplus on hand for future improvements. It has a membership of 400, not including the absentees. The monthly income from membership fees amounts to \$800.

The officers and directors of the Casino for 1911 were: Juan N. Torruella, president; Augusto Gautier, vice president; Adolfo S. Pagan, secretary; Guillermo Vivas Valdivieso, treasurer; and P. J. Armstrong, Ermelindo Vidal, Alberto Armstrong, T. W. Laguna and Francisco Cancio, directors; Pedro Vivas Valdi-

vieso, Sebastián Barnes, Antonio Gumet and Francisco Arce, assistants.

Centro Español de Mayagüez. The Centro Español de Mayagüez (Spanish Club) was founded by a number of Spaniards residing in Mayagüez on December 18, 1898. Though essentially a Spanish

organization, one of its objects was to encourage bonds of friend-ship between Spanish subjects and natives of Porto Rico and other countries residing in that city. It has been successful in its purpose, for the *centro* has now 206 members, including many foreigners. The officers and board of directors of the *centro* are: Miguel Esteves Blanes, president; Antonio Vicens Magraner, vice president; Antonio Salom, treasurer; Agustín Hernández, auditor; Benigno Rodríguez Compoamor, secretary; and José Durán Esmoris, Salvador Suau, Pablo Marques, and Patricio Martínez, directors.

The Casino de Mayagüez is one of the oldest and most prominent social organizations in the Island. Casino de It was founded on December 20, 1874, 36 years ago, Mayagüez. by 74 of the leading citizens of that town. interests of the casino were at the beginning purely social, to which has been added, from time to time, others of an educational and literary nature. Its membership at present is 239, and its financial condition good, the report for 1910 showing an income of \$3,401.90, against expenditures amounting to \$3,-The present officers and board of directors are as follows: José A. Domínguez, president; Juan Bianchi Green, vice president; Pedro Monagas, treasurer; Armando Boothby, assistant treasurer; Victoriano Soler, secretary; Conrado Hernández, assistant secretary; Víctor Galanes, Luís F. Sánchez, and Eduardo I. Sánchez.

Sociedad de la Historia de Puerto Rico.

The purpose of the Sociedad de la Historia de Puerto Rico (Historical Society of Porto Rico) as set forth in their by-laws are as follows: 1. The

study and investigation of the history of Porto Rico. 2. The establishment of a historical museum for Porto Rico. 3. The creation of a historical library. 4. To promote the study and knowledge of the history of the Island by means of the press, pamphlets, books, and lectures. 5. Foundation of a historical review in which will appear unpublished historical documents. 6. To send, in accordance with the Treaty of Paris, a commis-

sion to Spain to examine the Archives of the Indies of Sevilla for the purpose of studying the documents relative to Porto Rico and making copies of such as are necessary to complete the history of the Island during the Spanish colonial period. society was founded in 1910 by Manuel Zeno Gandía, Manuel Rodríguez Serra, Francisco Ramírez de Arellano, Ramón Gandía Córdova, Angel Panigua, Rafael Monagas, Negrón Flores, Augusto Malaret, Pedro de Elzaburu and Agustín de Navarrete. In recognition of services rendered in making historical investigations, the society elected honorary presidents, Salvador Brau y Asencio, Dr. Agustín Stahl, Father José María Nazario y Cancel, and W. H. Jones, Bishop of Porto Rico, who is the head of the ecclesiastical archives of the Island, which constitute a valuable source of historical information. society already has corresponding members in Cuba, Santo Domingo, Costa Rica, Venezuela, Mexico, and Spain. purpose of creating the museum, letters have been addressed to the different municipal councils of the Island, requesting the donation or deposit of pictures, photographs, arms, seals, laws, municipal ordinances, etc., which were in use during the Spanish régime. The officers and directors of the society are: Agustín de Navarrete, president; Manuel Zeno Gandía, vice president; Manuel Rodríguez Serra, treasurer; Francisco Ramírez de Arellano, secretary; and Ramón Gandía Córdova, Angel Paniagua, Pedro de Elzaburu, Rafael Monagas, Ramón Negrón Flores and Augusto Malaret.

The fear of a reduction in the duty on foreign sugar and opening the market to for-Sugar Producers' eign competition, while the tariff was before Association. Congress in February, 1909, was one of the reasons for the organization of the Sugar Producers' Associa-Hon. Eduardo Giorgetti invited all the sugar manufacturers, plantation owners, and cane growers to attend a meeting which was held on February 25 of that year for the purpose of determining the advisability of sending a commission to Washington to appear before the Committee on Ways and Means of the House of Representatives to urge the retention of the existing tariff. Upon that occasion it was resolved to go still further by organizing a permanent association. The association lost no time in beginning its labors, and sent a commission of sugar men to Washington that was joined by representatives of the steamship companies doing business in Porto Rico.

April, 1910, the association held its general meeting, and besides electing officers for the year, it resolved to establish a sugar experimental station for the purpose of improving the methods of raising and the quality of sugar-cane, and ascertaining the diseases of cane and the insects which attack it. To carry out this project the association has secured as director Thomas J. Crawley, of Harvard University, former director of the experimental station which the Cuban Government established at Santiago de las Vegas, as well as Dr. L. D. Van Dine and Dr. H. Johnston, of the Department of Agriculture, as entomologist Steps have also been taken to and pathologist, respectively. obtain an expert sugar grower from Louisiana and a chemist. The association has purchased 200 acres of land in the vicinity of Río Piedras, which represents not only the average quality of soil now used for sugar purposes in Porto Rico, but also contains hilly sections similar to the land to which production will probably be extended in the future. Four concrete cement buildings for offices, laboratories, etc., are being erected. Meanwhile the time of the technical personnel has been employed in visiting different sugar plantations and making observations of all conditions existing in the Island. The association, to carry out all its plans, has appointed a committee on agriculture, a committee on industry, and a committee on commerce. association has given its support to many matters of public interest, such as the securing of a more frequent mail service, the acquisition of favorable legislation in Congress, and the adjustment of local railroad rates on transportation of sugarcane, molasses, etc. The association is preparing an elaborate exhibit for the Insular Fair. It obtains funds for its support from contributions from sugar factories and plantations, which pay 25 cents for every ton of sugar manufactured, and 1 cent for each ton of sugar-cane from colonos of less than 200 acres The following are the officers: Eduardo Giorgetti, president; Ramón Aboy Benítez, vice president; Ramón H. Delgado, treasurer; Agustín Navarrete, secretary; and A. J. Greif, P. McLane, Rafael Fabián, Jorge Bird, Luis Rubert, T. G. I. Waymouth, Antonio S. Alcaide, Lucas Valdivieso, and Arturo Quintero, directors. The executive committee is composed of the following: Eduardo Giorgetti, chairman; Ramón Aboy Benitez, A. J. Grief, P. McLane and Rafael Fabián.

National Coffee Growers' Association. The coffee growers of Porto Rico, at a convention held in Ponce in November, 1909, organized the National Coffee Growers' Association. The principal ob-

ject of the organization was "to secure from Congress some reasonable measure of protection against foreign competition, to which the Island is, by right, entitled, and a just participation in the benefits obtained by virtue of treaties with other nations; to contribute in every possible way toward the development and progress of the coffee industry, giving preference to the study and propagation of the best methods of cultivation, examination of soils, and study and introduction of seeds and fertilizers which are best suited to our soil; to secure the establishment of agricultural schools and experimental stations devoted exclusively to the raising of coffee, and to urge the Insular Legislature to promulgate laws which would benefit the coffee industry in all its aspects." Congress has, in a measure, responded to the representations of the association by appropriating funds for the creation of a coffee experiment station, under the direction of a coffee expert. The Insular Government has taken an active interest in the work of the association. The cooperation of municipalities, banking and industrial corporations, and business men generally has been enlisted in the cause.

At a meeting held on July 24, 1911, the objects of the association were amplified by the passage of a resolution to establish a commercial department, with principal office in Ponce, P. R., for the purpose of advertising Porto Rican coffee; to begin the roasting of coffee on a large scale; to send the product to the United States for sale through the agency established there by the Insular Government, and also to promote the sale of Porto Rican coffee in other parts of the world. In order to provide funds for the plant for the roasting of coffee, the association will be incorporated, with a capital of \$1,000,000, in The officers and directors are the followshares of \$10 each. ing: Xavier Mariani, president; Manuel Rodríguez Cabrero, vice president; Jorge Armstrong, secretary; R. A. Almonte, assistant secretary; and Eugenio Morales, Baltazar Márquez, Juan E. Totti, Antonio Vázquez, Juan Chavier, Manuel Belén Pérez, Tomás Mari, Pablo Vileila, Felix Zugarramurdi, José P. Santíago, Felix Muñoz Grillo, and Tulio Larrinaga. executive committee is composed of the following: Ermelindo Salazar, chairman and treasurer; Jorge Armstrong, secretary; R. A. Almonte, assistant secretary; Rodulfo del Valle, Francisco Parra Capó, Rafael Collazo, Jorge Armstrong, Luis Porrata Doria, and Carlos López de Tord.

Union Party of was organized at a general assembly held in San Juan February 19, 1904.

This party has no platform like those adopted by political parties on the mainland of the United States, but according to a pamphlet published by the central committee it declared on the date of its organization certain principles which its adherents are pledged to uphold.

These, in brief, are: The securing of a definite political status for the Island, based upon a government deriving its power from the consent of the governed; recognition of the right to protection in seeking suitable markets for Porto Rican products; or recognition of the right of the Island, with the consent of the United States Government, to seek such markets by herself; acquisition of a definite citizenship for the Porto Ricans; and acceptance of any form of political organization whereby self-government may be secured, either as an autonomical country with American citizenship, as a State of the Union, or as an independent nation under the protectorate of the United States.

Later on a resolution was adopted reendorsing the previous declaration that complete self-government is the general aspiration of the Porto Rican people, but reserving to adherents of the party the liberty of supporting any form of political organization that might lead in their own opinion to the attainment of that end.

On December 2, 1904, the Union Party of Porto Rico again pledged itself to the support of the above-mentioned principles, and at the same time declared its purpose to obtain, by means of the following modifications to the present Organic Act, as much self-government as possible: Election of all members of the upper branch of the Legislature by the people through special electors; separation of legislative from executive functions; appointment of heads of departments by the Governor with the consent of the Upper House; and the taxation of foreign coffee imported into the United States, to provide the same protection to Porto Rico coffee that is afforded to other agricultural products of the United States; the Union Party at the same time assuring to the Government authorities its entire, active and

sincere cooperation in carrying on their work under the present plan of organization.

By virtue of subsequent resolutions adopted, the party has petitioned the Congress of the United States for the election of all the members of the upper branch of the Legislature by direct vote.

The central board of the Union Party is composed of the following officers and members: President, Mr. Eduardo Giorgetti; vice president, Mr. Carlos M. Soler; members, Mr. Francisco de P. Acuña, Mr. Cayetano Coll y Toste, Mr. José G. Torres, Mr. Tulio Larrínaga, Mr. Manuel Zeno Gandía, Mr. Herminio Díaz Navarro, Mr. Ramón H. Delgado, Mr. Acisclo Bou de la Torre, Mr. Laurentino Estrella Colón, Mr. Pablo Vilella Pol, Mr. José de Diego, Mr. Luis Porrata Doria, Mr. Celestino Domínguez Gómez, Mr. Antonio R. Barceló; secretary, Mr. Santiago Vivaldi Pacheco.

The total number of votes cast by the Union Party in the elections of 1910 was 100,634.

This party was organized in the year 1899. accordance with a pamphlet published by its cen-Republican tral committee, the party, at a convention held in Party. Guayama during the 31st day of July and the 1st and 2d days of August, 1910, ratified its conformity to the political system established in the United States, under which Porto Rico may become a State of the Union; expressed its desire for collective citizenship for all Porto Ricans; its desire for entire separation of the executive from the legislative functions of government; for an elective senate; that the appropriation bills originate in the House of Delegates; that the Island be divided into 35 electoral districts; and that delegates be required to reside in their districts. Other aspirations announced were: The increase of the administrative power of municipalities; a more effective intervention of the people in educational matters, in the building of roads, and in the granting of privileges and franchises; increase and perfection of the educational system of the Island; completion of the road system; forest conservation and irrigation of lands; protection for Porto Rican coffee; the deposit in Porto Rico of all funds pertaining to The People of Porto Rico; establishment of an agricultural bank; periodical holding of fairs and expositions; modification of system for the registration of titles of real property; enactment of a sanitary code; establishment of the grand jury system

for criminal cases; organization of the District Court of the United States in the same form as established in the Union; establishment of a bureau of labor to collect information concerning labor conditions; creation of an arbitration committee to decide questions arising between labor and capital; and the establishment of juvenile courts.

The territorial committee of said party is formed by the following gentlemen: Messrs. Manuel V. Domenech, Prisco Vizcarrondo, Joaquín A. Becerril, José Tous Soto, José Benet, Antonio Godínez, Juan Roig, Francisco Fuxench, and Edgardo Vázquez.

The number of votes cast by this party in the election of 1910 aggregated 58,572.

APPENDIX.

MISCELLANEOUS INFORMATION AND STATISTICS.

ROSTER OF INSULAR OFFICIALS.

Legislative.

Executive Council.—Luis Sánchez Morales, President; José C. Barbosa; Edwin Grant Dexter, Commissioner of Education; Foster V. Brown, Attorney General; John A. Wilson, Commissioner of the Interior; J. W. Bonner, Auditor of Porto Rico; M. Drew Carrel, Secretary of Porto Rico; Martín Travieso, Jr.; Rafael del Valle; Manuel Camuñas, Director of Health, Charities, and Correction; Allan H. Richardson, Treasurer of Porto Rico.

Employees.—W. Reese Bennett, secretary; Pedro de Castro, assistant secretary and translator; Elton Warner, Secretary, Committee on Franchises and Public Service Corporations.

House of Delegates.—José de Diego, Speaker, Mayagüez; Francisco L. Amadeo, San Juan; Antonio R. Barceló, Humacao; Carlos Benítez Santana, Humacao; Celedonio Carbonell, Mayagüez; Eduardo Cautiño, Guayama; Francisco Cervoni, Guayama; Francisco Coira, Arecibo; Cayetano Coll y Cuchí, San Juan; Rafael Cuevas Zequeira, Humacao; Ramón H. Delgado, Humacao; Herminio Díaz Navarro, Guayama; José de Elzaburu, Aguadilla; Juan García Ducós, Aguadilla; Eduardo Georgetti, San Juan; Antonio C. González, Aguadilla; Miguel Guerra, Mayagüez; José R. Larrauri, Ponce; Antonio López del Valle, San Juan; José F. Lluveras, Aguadilla; Alexander Marvin, Ponce; Domingo Massari, Mayagüez; Gustavo Muñoz, Guayama; Julio Rivera, Ponce; Francisco Roig Cardosa, Aguadilla; José Ruiz Soler, Arecibo; Nicolás Santini, Guayama; Félix Santoni, Arecibo; Carlos María Soler, San Juan; Antonio Suliveres, Arecibo; José G. Torres, Arecibo; Vicente Trelles Oliva, Mayagüez; Vicente Usera, Ponce.

Employes.—José Muñoz Rivera, secretary; Manuel Gilestra, interpreter.

Resident Commissioner to the United States.—Luis Muñoz Rivera, Washington, D. C.

Executive.

Chief Executive Office.—George R. Colton, Governor; Eduardo J. Saldaña, private secretary.

Office of the Secretary of Porto Rico.—M. Drew Carrel, Secretary; R. Siaca Pacheco, Assistant Secretary.

Office of the Auditor.—J. W. Bonner, Auditor; F. P. McCurdy, Acting Assistant Auditor.

Department of the Treasury.—Allan H. Richardson, Treasurer; Benjamín R. Dix, Assistant Treasurer.

Department of Justice.—Foster V. Brown, Attorney General; W. N. Landers, Assistant Attorney General.

Department of Education.—Edwin Grant Dexter, Commissioner; Frederick E. Libby, Assistant Commissioner.

Department of the Interior.—John A. Wilson, Commissioner; E. S. Wheeler, Assistant Commissioner.

Department of Health, Charities, and Correction.—Manuel Camuñas, Director; Jaime Annexy Cayol, Assistant Director.

Insular Police Commission.—Juan R. Baiz, President; D. E. Richardson and Roberto H. Todd, Members.

Civil Service Board.—Edmund Enright, Chairman and Secretary; Juan de Guzmán Benítez and José Lugo Viña.

Insular Board of Health.—Dr. Eusebio Coronas, Supervisor of Health, Dr. Cayetano Coll y Toste, José Antonio Canals, Luis Muñoz Morales, José Janer, Dr. Francisco Matanzo, and Esteban Saldaña, Members.

Board of Medical Examiners.—Gerónimo Carreras, President; Manuel Quevedo Báez, José N. Carbonell, Antonio Molina de St. Remy and Pedro Gutiérrez Igaravídez, Members.

Board of Dental Examiners.—Manuel del Valle Atiles, President; José Modesto Bird and Lorenzo R. Noa, Members.

Board of Pharmacy.—Pedro Julia, President; Clemente Ramírez, Rafael del Valle Sárraga, José J. Monclova, and Carlos A. del Rosario, Members.

Board of Trustees, University of Porto Rico.—E. G. Dexter, President; D. W. May, Federico Degetau, José de Diego, Allan H. Richardson, José C. Hernández, and J. T. Crawley, Members.

Board of Trustees, Insular Library.—E. G. Dexter, President; John A. Wilson and M. Drew Carrel, Vice Presidents; Cayetano Coll y Toste, José G. Torres, J. L. Dunlevy, and T. E. Edwards, Members.

Board of Trustees, Teachers' Pension Fund.—Emiliano J. Díaz, President; Eladio J. Vega, Treasurer; Juana Nin y Martínez, Secretary; José Becerra and Antonio Sarriera y Egozcue, Members.

Insular Fair Board.—George R. Colton, Governor of Porto Rico, Honorary President and ex officio member; D. W. May, Director United States Experiment Station, ex officio member; Eduardo Giorgetti, President; John A. Wilson, Luis Sánchez Morales, and Xavier Mariani, Members.

Board of Visitors to Charitable, Penal, Correctional, and Sanitary Institutions.—Dr. Francisco del Valle Atiles, Chairman; Juan Hernández López and Frank M. Welty, Members.

Advisory Board on Apportionment, Assignment, Use and Disposition of Public Buildings and Real Property.—The President of the Executive Council, Chairman; José de Diego, Speaker of the House of Delegates, Foster V. Brown, Attorney General; John A. Wilson, Commissioner of the Interior, and M. Drew Carrel, Secretary of Porto Rico, Members.

Board of Commissioners for the Promotion of Uniformity of Legislation in the States and Territories of the Union.—Foster V. Brown and Manuel Rodríguez Serra, Members.

Judicial.

Supreme Court.—José C. Hernández, Chief Justice; James H. MacLeary, Adolph G. Wolf, Emilio del Toro, and Pedro de Aldrey, Associate Justices; Charles E. Foote, Fiscal; Samuel C. Bothwell, Marshal; José Hernández Usera, Secretary.

District Court of San Juan.—Félix Córdova Dávila, Judge, Section 1; Jesús M. Rossy, Judge, Section 2; Luis Campillo, Fiscal; Alberto Marín, Secretary.

District Court of Ponce.—Antonio F. Castro, Judge; R. Palacios Rodríguez, Fiscal; Francisco Negroni, Secretary.

District Court of Mayagüez.—Domingo Sepúlveda, Judge; Salvador Mestre, Fiscal; José Basora Mestre, Secretary.

District Court of Arecibo.—Enrique Lloreda, Judge; Angel Acosta, Fiscal; Manuel L. Corbet, Secretary.

District Court of Humacao.—J. A. López Acosta, Judge; José R. Aponte, Fiscal; Jesús L. Pereyó, Secretary.

District Court of Guayama.—Harvey MacLeary Hutchison, Judge; Leopoldo Santiago, Fiscal; E. S. Mestre, Secretary.

District Court of Aguadilla.—Isidoro Soto Nussa, Judge; Libertad Torres Grau, Fiscal; Telesforo Cabán Cortés, Secretary.

Special Fiscal for the Island at large.—Frank Martínez.

Judges Municipal Courts.—José Cobián Rivera, Adjuntas; Miguel Olmedo, Aguadilla; José Natividad Quiñones, Añasco; Pedro Amado Rivera, Arecibo; Joaquín A. Medina, Barros; Manuel Benítez Flores, Bayamón; Angel M. Torregroso, Cabo Rojo; Miguel F. Chiqués, Caguas; Federico Schroder Ramírez, Carolina; Gabriel Castejón, Cayey; Pablo Alfaro, Coamo; Juan Penedo Benítez, Fajardo; Eduardo Marín, Guayama; Luis Pereyó Quiñones, Humacao; José S. Aybar, (acting) Juana Díaz; Tomás Bryan, Lares; José S. Alegría, Manatí; G. H. Moscoso, Mayagüez; José Díaz García (acting) Patillas; Luis Yordán Dávila, Ponce; Carlos García de la Noceda, Río Grande; José N. Robert, Salinas; Jaime Sifre, San Germán; Manuel Gaetán Barbosa, San Juan; Fernando Esteban Martínez, San Lorenzo; Pedro Betancourt, San Sebastián; Alberto Brusi, Utuado; José Náter Girona, Vega Baja; Harold M. Stiles, Vieques; Rafael Ortiz, Yabucoa; V. Rodríguez Rivera, (acting) Yauco.

ROSTER OF FEDERAL OFFICIALS.

Judicial.

District Court of the United States for Porto Rico.

Court Officials.—Paul Charlton, Judge, San Juan; W. N. Landers, United States Attorney, San Juan; Harry S. Hubbard, United States Marshal, San Juan; John L. Haas, Chief Deputy Marshal, San Juan; Fred E. Burnett, Deputy Marshal, San Juan; George Trautman, Deputy Marshal, Ponce; Raleigh F. Haldon, Deputy Marshal, Mayagüez; Rafael Guillermety, Clerk of Court, San Juan; Miss N. V. Colburn, Deputy Clerk, San Juan; Miss Lula A. Gross, Deputy Clerk, San Juan; Miss Florence T. Wattson, Judge's Stenographer, San Juan; Antonio Aguayo, Deputy Clerk, Ponce; Ricardo Nadal, Deputy Clerk, Mayagüez; Arthur J. Harvey, Court Stenographer, San Juan; Francisco Fano, Court Interpreter, San Juan; Frank Antonsanti, United States Commissioner, San Juan; William Falbe, United States Commissioner, Mayagüez; T. E. Lee, United States Commissioner, Ponce; Salvador Suau, Referee in Bankruptcy, San Juan; Leopoldo Feliú, Referee in Bankruptcy, Mayagüez; Manuel María Sama, Referee in Bankruptcy, Ponce.

United States Army.

District of Porto Rico.—Embracing Post of San Juan and Henry Barracks, Cayey, Headquarters at Casa Blanca, San Juan; Lieut. Col. Robert L. Howze, Porto Rico Regiment of Infantry, Commanding; Captain Frank C. Wood, Porto Rico Regiment of Infantry, Acting Adjutant General.

The Post of San Juan, P. R.—Garrison Headquarters, Noncommissioned Staff and Band, Companies A, B, C, D, E, H and Machine-Gun Platoon, Porto Rico Regiment of Infantry, and Detachment of Hospital Corps, United States Army, Lieut. Col. Robert L. Howze, Porto Rico Regiment of Infantry, commanding; Capt. John M. Field, Adjutant Porto Rico Regiment of Infantry, adjutant; Capt. Frank C. Wood, quartermaster Porto Rico Regiment of Infantry, quartermaster; Capt. Orval P. Townshend, Commissary Porto Rico Regiment of Infantry, commissary; Chaplain Francis B. Doherty (Captain), Porto Rico Regiment of Infantry.

Medical Department.—Maj. Bailey K. Ashford, Medical Corps United States Army, surgeon; First Lieut. Arturo Carbonell, Medical Reserve Corps, United States Army, assistant surgeon.

First Battalion, Porto Rico Regiment of Infantry.—Maj. Merch B. Stewart, Porto Rico Regiment of Infantry, commanding; First. Lieut. Eugenio C. de Hostos, Porto Rico Regiment of Infantry, adjutant; Second Lieut. Enrique de Orbeta, Porto Rico Regiment of Infantry, quartermaster and commissary.

Company E, at Fort San Cristóbal.—Capt. Stewart M. Decker, Porto Rico Regiment of Infantry; First Lieut. Pascual López, Porto Rico Regiment of Infantry; Second Lieut. Pedro A. Hernández, Porto Rico Regiment of Infantry.

Company H, at Fort El Morro.—Capt. Miles K. Taulbee, P. R. Regiment of Infantry; First Lieut. Luis S. Emmanuelli, Porto Rico Regiment of Infantry; Second Lieut. Serafin M. Montesinos, Porto Rico Regiment of Infantry.

Company A, at Infantry Barracks.—Capt. William H. Armstrong, Porto Rico Regiment of Infantry; First Lieut. Henry C. Rexach, Porto Rico Regiment of Infantry; Second Lieut. Carlos M. López, Porto Rico Regiment of Infantry.

Company B, at Infantry Barracks.—Captain William S. Woodruff, Porto Rico Regiment of Infantry (on detached service at Army Staff College, Fort Leavenworth, Kan.); First Lieut. Teofilo Marxuach, Porto Rico Regiment of Infantry; Second Lieut. Urbino Nadal, Porto Rico Regiment of Infantry.

Company C, at Infantry Barracks.—Capt. Abram I. Miller, Porto Rico Regiment of Infantry; First Lieut. Pedro J. Parra, Porto Rico Regiment of Infantry (on detached service as military aide to the Governor of Porto Rico); Second Lieut. Arturo M. Calderón, Porto Rico Regiment of Infantry.

Company D, at Infantry Barracks.—Capt. Edwin J. Griffith, Porto Rico Regiment of Infantry; Second Lieut. Adolfo J. de Hostos, Porto Rico Regiment of Infantry.

Machine-Gun Platoon, at Infantry Barracks.—First Lieut. Daniel Rodrí guez, Porto Rico Regiment of Infantry.

Post of Henry Barracks, Cayey—Second Battalion Porto Rico Regiment of Infantry.—Maj. William M. Morrow, Porto Rico Regiment of Infantry, commanding; First Lieut. Jaime Nadal, Porto Rico Regiment of Infantry, adjutant; Second Lieut. Leopoldo Mercader, Porto Rico Regiment of Infantry, quartermaster and commissary.

Medical Department.—First Lieut. Frank C. Griffis, Medical Reserve Corps, United States Army, surgeon.

Company F.—Capt. Samuel S. Bryant, Porto Rico Regiment of Infantry; First Lieut. Félix Emmanuelli, Porto Rico Regiment of Infantry; Second Lieut. Rafael Bird, Porto Rico Regiment of Infantry.

Company G.—Capt. Laurance Angel, Porto Rico Regiment of Infantry (on detached service at headquarters, Eastern Division, Governor's Island, N. Y.); First Lieut. Eduardo Iriarte, Porto Rico Regiment of Infantry; Second Lieut. Rafael Bird, Porto Rico Regiment of Infantry.

Wireless Station.—Chief Electrician A. A. Penland, United States Navy, in charge.

United States Customs Service.

Donald E. Richardson, collector of customs, headquarters at San Juan; Paul Cook, special deputy collector, port of San Juan; Hayden L. Moore, deputy collector, in charge of subport of Ponce; James G. Woods, deputy collector, in charge of subport of Mayagüez; Alejandro Salicrup, deputy

collector, in charge of subport of Arceibo; Pedro San Clemente, deputy collector, in charge of subport of Arroyo; Pedro Reichard, deputy collector, in charge of subport of Aguadilla; Juan Serrano, deputy collector, in charge of subport of Humacao; E. G. Comulado, deputy collector, in charge of subport of Fajardo; R. C. Lewis, deputy collector, in charge of subport of Guánica; Eugenio López, inspector in charge of Island of Vieques; Pedro R. Roger, inspector, temporarily in charge, Island of Culebra.

United States Postal Service.

San Juan.—W. K. Landis, postmaster; E. H. Hathaway, post-office inspector.

United States Public Health and Marine-Hospital Service.

Passed Asst. Surg. S. B. Grubbs, chief quarantine officer for Porto Rico; Acting Asst. Surg. P. del Valle Atiles; Pharmacist B. E. Holsendorf, San Juan, P. R.; Acting Asst. Surg. Julio Ferrer Torres, Ponce; Acting Asst. Surg. R. U. Lange Miranda, Mayagüez; Acting Asst. Surg. M. Martínez Roselló, Arecibo; Acting Asst. Surg. Buenaventura Jiménez, Aguadilla; Acting Asst. Surg. José A. Díaz, Fajardo; Act. Asst. Surg. James W. Brice, Humacao; Acting Asst. Surg. Juan Trujillo Pizá, Arroyo; Acting Asst. Surg. John F. Morse, Guánica.

United States Weather Bureau.

Oliver L. Fassig, section director; F. Eugene Hartwell, observer.

United States Immigration Service.

Graham L. Rice, commissioner, San Juan, P. R.

United States Department of Agriculture.

Porto Rico Agricultural Experiment Station.—D. W. May, special agent in charge, Mayagüez, P. R.

United States Light-House Service.

Ninth Light-House District.—Lieut. C. M. Austin, United States Navy, light-house inspector; Camille A. Lamy, superintendent; Edward T. O'Melia, chief clerk; John R. Monteiro, master, light-house tender Ivy.

Roster	οf	Consular	Representatives	in	Porto	Rico

Country.	Name.	Rank.	Residence.
Argentina	Ch. de Wæpenært. J. E. Saldaña. J. Lacot. A. Bravo Waldemar E. Lee. M. R. Calderón M. R. Morales. Sergio Ramírez José Caminero y Shelton Carlos Morales Alvarado.	Consul Consul General for Porto Rico and dependencies. Consul. Vice-Consul Vice-Consul Consul	San Juan. San Juan.
•	Alberto Bravo González Fernando Aleman y Vallee. Ernesto H. Lienau y Lange.	Honorary Consul	Mayagüez. Arecibo. Aguadilla.

Roster of Consular Representatives in Porto Rico—Continued.

Country.	Name.	Rank.	Residence.
Denmark	T. G. I. Waymouth	Vice-Consul	San Juan.
Denmark	Carlos Astrong	Consul	Ponce.
	Alberto Bravo	Consul	Mayagüez.
	Antonio Roig	Vice-Consul	Humacao.
Dominican Re-	Victor Duteil	Vice-Consul	Vieques.
public.	José María González Roselló.	Consul General	San Juan.
F	Antonio Cabral	Consul	Ponce.
	Pablo Cabral	Consul Vice-Consul	Mayagüez.
•	José Janer Angel Sanz y Ambros Ramón Wolff	Vice-Consul	Humacao. Arecibo.
	Ramón Wolff	Vice-Consul Vice-Consul Vice-Consul	Fajardo.
		Vice-Consul	Aguadilla.
	Ernesto Moringlaue	V1ce-Consul	Ponce.
France	José E. Castollón	Vice-Consul Consul	Vieques. San Juan.
France	Louis Raphæl Vicent Leccia.	Consular Agent	Ponee.
	Dr. André Orisini	Consular Agent	Mayaguez.
	Engene Elie Lefranc	l Consular Agent	Arecibo.
	P. Sandoz	Consular Agent	Humacao. Arroyo-Gue
	Vicent Antonetti	Consinal Agent	vama
	Ch. Le Brun	Consular Agent	Vieques.
Germany	Waldemar Hepp	Consul	San Juan
	Julius Umbach	Vice-Consul	Ponce. Mayagiiez.
	Hubert KobergAdolph Kæster	Vice-Consul	Arecibo.
	Otto Philippi	Vice-Consul	Aguadilla.
Great Britain	- William Brown Churchward.	Consul	San Juan. San Juan.
	T. G. I. Waymouth	Vice Consul	
	Fernando Miguel Toro Adolfo Steffens	Vice-Consul	Ponce. Mayagüez.
	Lorenzo Oliver	Vice-Cousul	Arecibo.
	Antonio Roig. Henry A. McCormick	Vice-Consul	Humacao.
	Henry A. McCormick	Vice-Consul	Arroyo-Gu
Guatemala	Charles Vére	Consul	yama. San Juan.
Haití	Charles Vére	Consul	San Juan.
	Charles Vére Paul Vincenti	Consul	Ponce.
T4 1	Adolfo Steffens	Vice-Consul	Mayngüez. San Juan
Italy	Alessandro Bozzo F. F. Costa	Consul	Ponce.
	Giacomo Antonio Caino	Consular Agent	Mayagücz,
Mexico	Manuel Paniagua y Oller	Consular Agent	San Juan.
	Federico Gatell y García de	Vice-Cousul	Mayagüez.
Netherlands	Quevedo.	Concul	San Juan.
remenands	Albert E. Lee Otto E. A. F. Wantzelius	Consul	Ponce.
	Jacobo Bravo	Vice-Consul	Mayagüez.
Norway	Alfonso Manuel Fernández.	Consul	San Juan,
Рапата	Charles Váro	Conent	Ponce. San Juan.
	Matías Vidal	Honorary Consul	Ponce.
Paraguay	Manuel Fernández Juncos	Honorary Consul Consul Consul	San Juan. San Juan.
Peru	Dr. Manuel J. Nuñez	Consul	San Juan.
Portugal	José María Lomba Dr. Esteban García Cabrera	Consul	San Juan. San Juan.
Spain	Felix de Siloniz y Colarte	Consul	San Juan
- p	José María Martínez y de	Consul	San Juan. San Juan.
	Pons.		**
	Florengio Súarez	Honorary Vice-Consul Honorary Consul	Ponce. Mayagüez.
	Juan Vázquez y López Amor. Francisco Pelegri Roger	Honorary Vice-Consul.	Mayaguez.
	Angel Sanz y Ambros	Honorary Vice-Consul	Arecibo.
	Juan Casellas	Honorary Vice-Consul. Honorary Vice-Consul. Honorary Vice-Consul. Honorary Vice-Consul.	Aguadilla.
	Antonio Ma. Oms y Call Avelino Portela Rolan	Honorary Vice-Consul Honorary Vice-Consul	Humacao.
Sweden	Johann Friedrich von Uffel	Consul	Vieques. San Juan.
J. 11 C.	Schomburg.	Consui	ban attan.
	Schomburg. Max Karl Wilhelm Heine	Vice-Consul	Ponce.
Uruguay	Carlos Conde	Honorary Consul	San Juan.
	Carlos Arinstrong	Vice-Consul	Ponce.
Venezuela	Jacobo Bravo y González Gabriel Colmenares	Vice-Consul	Mayagüez. San Juan.
,	Rafael W. Camejo	Consul	San Juan.
	Adolfo Steffens	Consul	Mayagüez.
		Consul	Arecibo.

OFFICERS AND DIRECTORS OF PRINCIPAL BUSINESS ORGANIZATIONS.

Porto Rico Association.—President, Eduardo Giorgetti; vice-president, Luis Toro; board of Governors, Eduardo Georgetti, Luis Sánchez Morales, D. E. Richardson, W. McK. Jones, Xavier Mariani, J. R. Bruce, Manuel F. Rossy, Luis Toro, John A. Wilson, Edward S. Paine, Ramón H. Delgado, Frank M. Welty, Manuel Ledesma, Chase Ulman, Hernand Behn, Carlos Ma. Soler, Ramón Aboy, José de Diego, Rafael Fabián, John M. Turner, Charles Hartzell; executive committee, Eduardo Georgetti, Charles Hartzell, Luis Sánchez Morales, Hernand Behn, Carlos Ma. Soler. (Secretary and treasurer to be elected by board of governors.)

Association of Sugar Growers.—President, Eduardo Georgetti; vice-president, Ramón Aboy Benítez; treasurer, Ramón H. Delgado; secretary, Agustín Navarrete; directors, A. J. Greif, P. McLane, Rafael Fabián, Jorge Bird, T. G. I. Waymouth, Antonio S. Alcaide, Lucas Valdivieso, Arturo Quintero; executive committee: President, Eduardo Giorgetti; Ramón Aboy Benítez, A. J. Greif, Rafael Fabián, P. McLane; agricultural committee: President, Luis Rubert; H. S. Brandon, Antonio Quintero, E. E. Olding; industrial committee: Jorge Bird, N. Marr, G. Riefkohl, H. Edson; commercial committee: T. G. I. Waymouth, A. S. Alcaide, Manuel Ledesma, Pedro Arzuaga.

San Juan Stock and Produce Exchange.—President, Sosthenes Behn; vice president, Eduardo Giorgetti; secretary and treasurer, Sergio Ramírez; board of governors, Sosthenes Behn, Manuel Paniagua, Rafael Fabián, Luis Toro, Sergio Ramírez, José M. Lomba, Damián Monserrat, Avelino Vicente, J. L. Pérez, Dionisio Trigo, Carlos Conde.

The Porto Rico Fruit Exchange.—President H. H. Scoville; first vice-president, Edmund Stevens; second vice-president, James Struthers; secretary, C. G. Thompson; treasurer, Miss A. M. Bacon; directors, H. H. Scoville, James Struthers, J. D. Gillies, C. P. Avery, Edmund Stevens, C. G. Thompson, F. E. Dyer, G. L. Elkins, A. A. English, T. E. Heriot, E. A. Bailey, H. de H. Castle, N. L. Reed, W. S. Whitehouse.

Tobacco Growers' Association.—President, Manuel F. Rossy; vice-president, Francisco Giménez Lajara; directors: Rafael María González, San Juan; Rafael Hernández, Gurabo; Rafael Burgos, Bayamón; Antonio Colón, Comerío; Ramón Flores Planellas, Aibonito; Dr. José Barreras, Juncos; José Fernando Aponte, San Lorenzo; Nicolás Quiñones Cabezudo, Caguas; Luis Benet, Cayey; José L. Berríos, Yabucoa.

San Juan Chamber of Commerce.—President, Ramón Valdés; first vice-president, Carlos Conde; second vice-president, Rafael Fabián; treasurer, Sergio Ramírez; secretary, Harry F. Besosa; directors, Pedro Arsuaga, Angel Gonzalez, José León, Henry W. Dooley, R. Castro González, Waldemar Hepp, Antonio Caubet, Evaristo Freiría, José M. Lomba, Reinaldo Paniagua, Dionisio Trigo.

The Porto Rico Horticultural Society.—President, F. M. Pennock; first vice-president, James S. Struthers; second vice-president, Charles P. Avery; third vice-president, W. H. Woodsum; director at large, D. W. May; secretary and treasurer, C. F. Kinman.

National Coffee Growers' Association.—President, Xavier Mariani; secretary, Jorge Armstrong; executive committee: E. Salazar, president and treasurer; Jorge Armstrong, secretary; R. A. Almonte, assistant secretary; Francisco Parra Capó, Rodulfo del Valle, Rafael Collazo, Luis Porrata Doria and Carlos López de Tord.

Board of Trade of Porto Rico.—President, John A. Wilson; secretary, F. F. Harding; treasurer, John M. Turner.

Insular Fair Board.—Honorary president, George R. Colton, Governor Porto Rico; president, Eduardo Giorgetti; Luis Sánchez Morales, John A. Wilson, Xavier Mariani, D. W. May; secretary and treasurer, John L. Gay.

Legal Holidays.

The legal holidays in Porto Rico, prescribed by local legislation, are—Sundays.

New Year's Day, January 1.

Washington's Birthday, February 22.

Emancipation Day, March 22.

Good Friday.

Decoration Day, May 30.

Independence Day, July 4.

Landing of United States Troops in Porto Rico, July 25.

Labor Day, the first Monday in September.

Christmas Day, December 25.

Election Day, first Tuesday after the first Monday in November.

Such other holidays as may be designated by the President of the United States, the Governor of Porto Rico, or the Legislative Assembly.

Population of Porto Rico.	Number of inhabitants.
1765	44,833
1775	80,504
1782	81,120
1783	87, 994
1784	91,845
1785	93,300
1786	96,233
1787	98, 877
1788	101,398
1789	103,051
1790	106,679
1791	
1792	115,557
1793	120,022

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Population of Porto Rico-Continued.

	Number of inhabitants.
1794	127, 133
1795	129, 758
1796	132, 982
1797	138, 758
1798	144, 525
1799	153, 232
1800	155, 426
1801	158, 051
1802	163, 192
1803	174, 902
1812	183, 014
1815	220, 892
1834	358, 826
1846	443, 139
1860	583, 308
1877	731, 648
1887	806, 780
1897	894, 302
1899	953,243
1910	1, 118, 012

Comparative statement showing total urban and rural population of Porto Rico, by municipalities, for 1910 and 1899.

Note.—Where there is more than one urban center in a municipality, each is shown separately, by indentation under the municipality.

Municipality.		1910.		1899				
zattatorpatity.	Total.	Urban.	Rural.	Total.	Urban,		Rural.	
.djuntas	16.954	1.406	15.518	19.484		1.963		17.59
guada	11,587	909	10,678	10,581		1.135		9,4
guadilla. guas Buenas.	21,419	6.135	15.284	17,830	1	6.425	i	11.40
guas Buenas	8,292	1.166	7.126	7.977	!	1.309		6.66
Abonito	10.815	2,153	8,662	8,596	!	2,085		6.51
.ñasco	14.407	3,064	11,343	13,311		2,483		10.83
recibo	42.429	9,612	32,817	36.910		8.008		28.9
Troyo	6.940	3.220	3.720	4.867	İ	2,137		2.7
arceloneta	11,614	693	10,951	9.357	(b)	672	(a)	8,6
arranquitas	10.503	772	9.731	8.103		666		7,4
arros	15,028	1.008	14.020	14,845		962		-13.8
ayamón	29.986	13.519	16.167	19.940		4,549		-15.3
Bayamón		5,272 (c) 3,461				2,218		
Pájaros Barrio Cataño		4.786				(d)		
abo Rojo	19,562	3,847	11114818181	10 151		2.331		
aguas	27,160	10,354	15.715 16.806	16,154 19,857	1	2.714		13,4
amuy	11.342	1,148	10,806	19.857	de	5.450	1000	14,4
arolina	15.327	3.244	12,083	11.965	(b)	$\frac{718}{2.177}$	(a)	10,1
ayey	17.711	1,198	13.213	14,442		3,763		9,7
iales .	18.398	1.683	16.715	18.115		1.356		$\frac{10.6}{16.7}$
idra	10.595	1.535	9,060	7,552	-	1.034		6.5
oamo	17.129	3.869	13.260	15.144		3,244		-11.9
omerío	11.170	1,908	9.262	8.249		1.191		7,0
orozal	12,978	1.301	11.677	11.508		1,057		10.4
ulebra	1.315	384	931	704	(b)	206	(1)	4
orado	4.885	946	3,939	3.804	(0)	937	(b)	2,8
ajardo	21.135	8.797	12,338	16,782	(a)	5,576	(a)	11.2
Faiardo.		6.086	12,000	10,702	(4)	3,414		11,2
Ceiba		920			(b)	753		
Fajardo Plava		632			(b)	506		
Ceiba Fajardo Playa Luqnillo	. 	1.159			(0)	903		
uayama	17.379	8,321	9.058	12,749		5,334		7.4
uayanılla	10,354	1,141	9.213	9.540	i	973	1	8,5
urabo	11.139	2.230	8,909	8.700		1.309		7.3
atillo	10,630	599	10.031	10,449		669		9.7
umacao	26.678	6.544	20,137	22,915	(a)	5.802	(a)	17,1
Humacao. Humacao Playa. Las Piedras		5,159		1		4,428	1 '	
Humacao Playa		988				646		
Las Piedras		394			(b)	728		
abera	16.852	1.268	15,584	14,888		881	1	14.0
iana Díaz	29.157	2,092	27.065	27,896		2.246		25.6
meos	11.692	4.141	7.551	8,429		2.026		6.40
ajas	11.971	720	10,351	8.789	(b)	483	(a)	8,3
ares	22.650	2.751	19.899	20,883		3,714		17,16
ıs Marias	10.046	263	9.783	11.279	(b)	296	(a)	10.9
anati	13,317 17,240	$\frac{1.024}{4.439}$	12.296	12.522		833		.11,68
aricao	7,158		12,801	13.989		4,494		9.49
aunabo	7,106	732 952	6,426	8,312		1.179		7,13
ayagüez	42,429	16,939	6,154	6,221	1	1,277		4.9
Mayagüez	42,429	16.594	25,490	38,915	(a)	15,422	(a)	23,4
Hormigueros		348			(b)	$15{,}187$ 235		
oca	13,646	1,585	12,055	12,410	(0)	1,470		10,9
orovis	12,446	1,063	11.383	11,309		1.064		10,5
iguabo	14.365	3.303	11.062	10.873		1,812		9,0
aranjito	8,876	769	8.107	8,101		614		7,48
tillas	14,448	2.228	12.220	11,163		1,590		9.5
nuelas	11,991	1,042	10.949	12,129		1,330 $1,129$	1	11,00
once.	63,414	35,027	28.417	55,477		27.952		27,5
ıebradill a s	8,152	1,224	6,928	7,432		1,166	1	6.2
neon	7,275	308	6,967	6,641	(b)	$\frac{1,100}{271}$	(a)	6,3
io Grande	13,948	1,843	12,105	12.365	(0)	1,285	(40)	11,08
io Piedras	18,880	3,084	15,796	12,365 $13,760$		2,249	1	11,5
bana Grande	11,523	2,636	8,887	10,560		2,249 2,531		8,0
linas	11,403	1.857	9,546	5,731		1,192		4,5

Comparative statement showing total urban and rural population of Porto Rico, by municipalities, for 1910 and 1899—Continued.

Note.—Where there is more than one urban center in a municipality, each is shown separately, by indentation under the municipality.

Municipality.		1910.		1899.					
mumerpanty.	Total.	Total. Urban.		Total.	Urban.		ban. Rural		
San Juan	48.716	48.716		32.048		99.048			
San Lorenzo	14.278	2.663	11.615	13,433		2.084		11.349	
San Sebastián	18.904	1.920	16.984	16,412		1.700		14.712	
Santa Isabel	6,959	1.290	5,669	4,858		1.142		3,716	
Toa Alta		905	8.222	7,908		991	1	6,917	
Toa Baja	6,254	2,404	3,850		(a)		(a)		
Toa Baja	0,201	$\tilde{1.759}$	5,000	1,000	(40)	1,300		2.011	
Palo Seco		645			(b)	416			
Trujillo Alto	6.345	573	5.772	5,683	(0)	1.025		4.658	
Utuado	41.054	3,958	37,096		(a)	4.520	(a)		
Utuado		3,208			()	3.619			
Javuva		750			(b)	901			
Vega Alta Vega Baja	8.134	1.667	6,467		. ,	1.081	1	5.026	
Vega Baja	12,831	3.082	9.749	10.305		2.288		8.017	
Vieques	10,425	3,158	7.267	5,938		2,646		3,292	
Yabucoa	17,338	2,816	14,522	13.905		1,838	i	12.067	
Yauco	31,504	8,357	23,147	27,119	(a)	7.471	(α)	19.648	
Yauco		6,589			ľ. <i>′</i>	6,108	·		
Guánica		1,768			(b)	1,363			
Porto Rico	1,118,012	283,798	834,214	953,243	(a)	217.614	(α)	735,629	

Municipalities.

Name.		Loca	tion.		Population	Assessed local wealth	
Nume.	Latitude.		Longitude.		1910.		
				. Min.			
Adjuntas	18	10	66	43	16.954	19,484	\$1,292,46
Aguada	18	23	67	12	11.587	10,581	1,018,74
Aguadilla	18	26	67	9	21,419	17,830	1.078,06
Aguas Buenas	18	15	66	7	8.292	7,997	358,60
Aibonito	18	. 8	66	16	10.815	8,596	765,15
Añasco	18	17	67	-8	14.407	13,311	1,316,40
Arecibo	18	28	66	43	42,429	36,910	5,651,35
Arroyo	17	58	66	4	6,940	4.867	1,038,19
Barceloneta	18	26	66	32	11,644	(1) 9,357	
Barranquitas	18	11	66	18	10,503	8.103	358,61
Barros	18	13	66	24	15,028	14,845	545,84
Bayamón	18	23	66	10	29,986	19,940	3,048,75
Cabo Rojo	18	5	67	8	19,562	16,154	1,453,73
Caguas	18	14	66	3	27.460	19,857	3,171,92
Camuy	18	29	66	51	11.342	10,887	685.16
Carolina	18	23	65	58	15,327	11,965	1,674,58
Cayey	18	7	66	11	17,711	14,442	1,411.47
Ciales	18	20	66	28	18,398	18,115	980,01
Cidra	18	11	66	10	10,595	7.552	486.21
Coamo	18	5	66	22	17,129	15.144	1.253,38
Comerío	18	13	66	13	11.170	8,249	918,12
Corozal	18	20	66	19	12,978	11,508	375.19
Culebra Island	18	20	65	17	1,315	704	130.46

⁽¹⁾ Included in municipality of Manati; to become a distinct municipality afte January 1, 1911.

⁽a) Partly estimated; certain urban centers not separately reported in 1899.
(b) Estimated; not separately reported for 1899.
(c) Urban population of barrio Pájaros, which, while not included in barrios composing the town of Bayamón, is contiguous to and, to all intents and purposes, forms part of the town of Bayamón. (d) Was rural in 1899.

Municipalities—Continued.

Name.		Loc	ation.		Population	Assessed	
	Latitude.		Longitude.		1910.	1899.	local wealth
	Degs	. Min.	Degs.	. Min.			
Dorado	18	27	66	16	4,885	3,804	\$666,581
Fajardo	18	19	65	39	21.135	16,782	4.821.95
Guayama	17	59	66	7	17,379	12,749	2.809.52
Guayanilla	18	1	66	47	10,354	9,540	1,058,936
Gurabo	18	15	65	58	11.139	8.700	1,027,68
Hatillo	18	29	66	49	10,630	10.449	756,94
Humacao	18	8	65	50	26,678	(2) 22,915	3.858,48
sabela	18	31	67	2	16.852	14,888	662,21
Juana Diaz	18	3	66	31	29,157	27,896	2.819,24
Juncos	18	13	65	55	11,692	8.429	1.905.74
Lajas	18	Î	67	3	11.071	8,789	1,213,37
Lares	18	· 17	66	53	22,650	20.883	1,466,85
as Marías	18	15	67	00	10.046	11.279	1,400,83
Joiza	18	26	65	53	13,317	12.522	2.079.22
Manati	18	25	66	29	17,240	13,989	3.386.10
Maricao	18	11	66	59	7.158		
Maunabo	18	00	65	54	7.106	8.312	1.048,250
layagüez	18	12	67	9	42.429	6.221	552,86
doca	18	24	67			(3) 38,915	5,336,86
Morovis	18	19	66	7 24	13,640	12.410	460,313
aguabo	18	12	65	44	12,446	11,309	497,40
Jaraniita					14,365	10,873	1,603,74
Varanjito	18	18	66	15	8,876	8.101	240,10
Patillas	18	00	66	2	14,448	11,163	939,320
Peñuelas	18	3	66	43	11,991	12,129	739,053
Ponce	18	00	66	37	63,444	55,477	11,719,44
Quebradillas	18	28	66	56	8,152	7.432	328,519
Rineón	18	21	67	15	7,275	6.641	321,20
Río Grande	18	23	65	50	13,948	12,365	1.149,684
Río Piedras	18	24	66	3	18,880	13,760	2.747.703
abana Grande	18	5	66	57	11,523	10,560	519,558
ali nas	17	58	66	18	11,403	5,731	2,547,987
an Germáu	18	5	67	3	22,143	20.246	1.661,632
an Juan	18	28	66	7	48,716	32.048	23.628,248
an Lorenzo	18	11	65	58	14,278	13,433	706.708
an Sebastián	18	20	67	00	18.904	16,412	999,406
anta Isabel.	17	58	66	24	6,959	4.858	2.144.541
oa Alta	18	23	66	15	9,127	7.908	421,678
oa Baja	18	26	66	15	6,254	4.030	1.078,455
rujillo Alto	18	21	66	00	6.345	5,683	5 - 2,222
tuado	18	15	66	42	41.054	43,860	2,326,990
eva Alta	18	21	66	20	8,134	6,107	689.358
ega Baja	18	26	66	23	12,831	10.305	1,030,764
'ieques	18	9	65	27	10,425	(4) 5,938	2,396.180
abucoa.	18	2	65	53	17.338	13,905	1.881,506
auco	18	$\frac{2}{2}$	66	51	31,504	27,119	4.718,006
Total					1,118,012	953,243	133.817,931

Assessed value of property in Porto Rico, fiscal years ending June 30, 1902-1912.

Fiscal year.	Assessed value.
1901–1902	\$97,000,966
1902–1903	93, 870, 957
1903-1904	94, 246, 645
1904–1905	
1905–1906	94, 048, 066
1906–1907	99, 549, 290
1907-1908	108, 407, 794
1908–1909	. 117, 587, 873
1909-1910	
1910–1911	
1911-1912	162 299 172

⁽²⁾ Includes population (8,602) of municipality of Las Piedras; annexed to Humacao since 1899.

(3) Includes population (3,215) of municipality of Hormigueros; annexed to Mayagüez since 1899.

(4) Includes population (701) of the Island of Culebra; shown separately in 1910.

Total assessed value of real property, by municipalities and classes, for the fiscal year 1911.

	t is named "When the problem that the temperature of	URBAN	RURAL,			
Municipality.	Lots.	Improve- ments.	Total.	Cane.	Coffee.	
Adjuntas	\$16,041	\$54,715	\$70,756	\$19.395	\$ 519.225	
Aguada	1,528	13,287	14,815	324,215	29,25	
Aguadina	60.764 495	311.093 43,595	371.857 41.090	131,306 1,180	3,688 55,658	
Aguadilla Aguas Buenas Aibonito	565	101,459	102,021	1.160		
Añasco	3,844	99,772	103,616	408,713	215,20	
Arecibo	147,240	714,411	861,651	1.273.745	108.32:	
Arroyo	22,944	149,511	172.455	301.875	. 5.388	
BarranquitasBarros.	165	26,271 32,685	26,436 32,685	1,310	22.886 90.298	
Bayamón	354,361	761.003	1.115,364	207.945	22.80	
Cabo Rojo	1.085	102.025	103,110	439.199	2,62	
Caguas	7,937	735,382	743,319	175,238	10.63	
Camuy	630	31,840	35.470	91.896	44.82	
Carolina	15,406 39,428	159,440 252,036	174,846 291,464	356.127 900	2.77 103.44	
Ciales	3,900	81,370	85.270	1.905	352.08	
Cidra	280	31,463	31.743	350	23.62	
Coamo	1.587	192.546	194,133	34.435	121.89	
Comerfo	934 1.738	52,612	53,546	100	38.73	
Corozal Culebra	1.750 656	33,490 19,445	35,228 20,101	2.655	30,73	
Dorado	630	20.283	20,913	219.280	2.63	
Fajardo	1,417	317,729	349,146	668.960	1.83	
duayama	4,143	540.147	544,290	717.625	110,96	
Ruayanilla	8,418	47.005	55,423	324,080	118.86	
lurabo Iatillo	260 80	65,729 29,519	65,989 29,599	189,655 63,635	6,78 18,47	
Humacao	22,465	442.209	464.674	696,999	1.58	
sabela	3.250	40,706	43,956	58,620	21.08	
uana Díaz	13.050	135,552	148.602	972,573	205.58	
nncos	2,110	169.720	171.830	99,360	39.	
ajas ares	$\frac{175}{2.589}$	9,080 151,983	9,255 154,572	405,401 3,660	5.22 695.90	
as Marías	1.241	9,127	10,368	5.240	657,26	
oiza	175	27,826	28,001	484,825	63.75	
Janati	7,706	257.751	265,457	765,467	62.07	
Aaricao	$\frac{4,800}{1.430}$	45.143 70.425	49,943 71.855	420 161,330	575,60 2.14	
Aaricao Aaunabo Aayagüez	$\frac{1.450}{420,512}$	1,511,583	1.932.095	628,369	490.83	
doca	1,406	13.327	14,733	58,240	117.98	
Morovis	325	31.645	31,970	19.801	 82,29 	
Vaguabo	4,955	105,689	110,644	344.650	81	
Varanjito	318	13.909	14.227 55,770	180 274,303	36,15	
Patillas Peñuelas	700 3,543	55.070 35,532	39,075	196.288	19,45 79,62	
once	1.866,445	2.768.260	4,634.705	1.282.507	263.29	
Ponce Juebradillas	105	2,768.260 36 , 356	36.461	24.900	28,41	
Cincon	545	5,789	6,334	77.944	3.91	
Río Grande	$\frac{2,552}{132,365}$	81.098	86,650	212.545 240.530	36.54 19.57	
tio Piedrasabana Grande	152,505 1.155	425.034 82,100	557.399 83,255	-100.336	37.19	
alinas	14,339	81.167	98.506	731,017	1,80	
an Germán	18,144	320.075	338,219 13,058,005	361,701	120.03	
an Juan	5,360,743	7.697.262	13,058,005			
an Lorenzo	$\frac{120}{2.291}$	92,326 64,512	92,446 66,803	80.485 18.676	21.27 352.27	
anta Isabel	9,750	50,671	60.421	692,442	004.27	
oa Alta	4,153	46,687	50,840	11,388	3.03	
oa Baja	4,618	53.027	57,645	402.536	220	
rujillo Alto	70	15,570	15.640	7.165	1,310	
Jtuado	14,619	213,605	228,224	33,175 108,457	728.09 5.10	
Vega Alta	352 6,813	33.288 112.502	33,640 $119,315$	306.413	3,28	
leques	590	138,515	139.105	466,232	. 	
/ega Baja /ieques /abucoa	2.110	129,570	131.680	554.525	1.110	
Zauco	9,531	439,469	449,000	. 535,869	255,76	

Total assessed value of real property, by municipalities and classes, for the fiscal year 1911—Continued.

Adjuntas. Adjuntas. Agrandila S856 Agrandila 11.525 Agrandila 1		R U R A L—Continued.										
Agrandilla (1-23 (1-35)	Municipality.	Tobacco.		Orange.			Pasture.					
Aguadilla (1423 (1536)	Adjuntas						\$196.62					
Abbenium Abaseo 10.186 S5.820 S70.657 Abaseo Arcelbo	Aguada	\$856				24.250	98,20					
Abboulle 100,101 100,1	Aguadilla	1,423			7,365	55,505						
Añasco	Aguas Buenas	165 151			60	24,698						
Arecho 10.188 \$5,820 \$70,657 568 57,910 552,07 Arroyo 20 \$32,988 1.000 7.497 140.37 Barranquitas 33.988 45.815 112.68 Bayramon 717 11.953 73.798 4.700 21.211 538.28 Bayamon 133.371 1.000 190 11.279 538.08 Caguas 133.371 1.000 190 11.279 538.08 Caguas 133.371 1.000 190 14.279 538.08 Carollina 20 800 860 16.977 179.88 Carollina 21.118 3.05.28 3.05.28 Carollina 21.118 3.05.28 3.05.28 Corocal 1.050 3.05.28 3.05.28 Corocal 1.050 3.05.28 3.05.28 Corocal 1.050 3.	A ñasea	100,101				28.147						
Arroyo Barranquilitas Barrans Bayans Bayan	Arecibo	10.188	\$5.820	\$70.657	568							
Barranquitas	Arroyo	20					140.37					
Bayamón 777 14.953 73.788 4.700 24.211 538.850 Capba Rojo 400 400 400 3190 14.279 538.08	Barranquitas	33.988					112,68					
Cabo Rojo		8.190										
Cagning	Bayamon		14.953				538.28					
Campung 9.475 1.910 210 33.057 201.21	Cannoe		1.000				528.09					
Carolina	Caguas						901.94					
Cayey 258.614 60.213 210.312 Cidara 121.118 36.488 136.04 Commo 30 64.572 400.17 Comerio 88.739 26.771 129.19 Corrozal 1.059 25.617 129.09 Culebra 25.617 129.09 66.72 Dorado 11.875 11.335 1.875 4.195 Fajarrio 20 30.000 4.880 6.017 189.81 Guayamm 475 30.000 4.880 6.017 189.81 Guayamm 1.660 4.000 67.280 104.64 Gurabo 228.400 10.00 11.000 11.000 Guayama 17.281 2.888 8.839 667.22 Humlaca 17.284 2.888 8.839 667.22 Guayama 17.284 2.888 8.839 667.22 Huttlide 19.826 900 1.000 31.336 355.28 Huttlide 1	Carolina					16.977						
Ciales 5.870	Cayey	258,614	1			60,243	210.439					
Common 30	Ciales	5,870					105.748					
Comerio S8,739	Cidra	121,118					136.04					
Coroxal 1.059	Coamo,					64,572						
Calebra						26.771	132,92					
Dorado	Culahra						129,978					
Fajardo 20 30.000 4.880 6.047 489.84 Guayama 475 2.150 17,527 561.80 Guayamilla 1.600 4.000 67,280 104.60 Gurabo 228.100 10,600 31,336 355.28 Humacao 17,284 2.888 8.899 677,428 Humacao 17,284 2.888 8.899 677,429 Juncos 34.901 60 63,597 663,357 Juncos 34.901 5.067 489.44 Laias 651 25 180 88,737 Juncos 34.901 5.067 489.44 Laias 651 25 180 88,737 Juncos 90 52.791 166.09 52.791 166.09 Lares 90 15.400 16.887 66.68 67.04 Maritas 120 15.400 16.283 67.04 Maritas 120 15.400 16.887 66.69	Dorado		11.875	1.1 335	1.875		102.06					
Guyantilla 1.000	Fajardo	20	11,010									
Guyantilla 1.000	Guavama	475		50.000								
Gurabo 228.100 10,400 211.18 Hatillo 19.826 900 1.060 31.336 355.28 Humacao 17.284 2.888 8.839 677.42 Isabela 17.799 95 80,451 195.15 101000 31.336 355.28 101000 31.336 355.28 31.000 35.067 489.44 4.89.44	Guavanilla	1.600				67.280						
Humacao	Gurabo	228.400				10,400	211.188					
Isabela	Hatillo		900			31.336	355.28					
June		17.284										
Huncos	Isabela	17,799										
Laias 651 25 180 88,737 378,60 Lares 90 52,791 165,090 52,791 165,090 Las Marías 120 15,400 16,887 65,69 65,69 Loiza 13,022 500 72,950 13,982 351,36 Maricao 4628 67,04 670 76,15 760 76,15 Maricao 1,493 760 76,07 76,15 760 76,15 760 76,17 760 76,15 76,00 76,00 76,00 76,00 76,00 76,17 760 76,15 76,00 76,00 76,17 76,00 76,17 76,00 76,17 76,00 76,17 76,00 76,17 76,00 76,17 76,00 76,14 76,00 76,14 76,00 76,14 76,00 76,14 76,00 76,14 76,00 76,14 76,00 76,00 76,00 76,00 76,00 76,00 76,00 76,00 76,00 76	Juana Diaz				60		663,37.					
Lare 90	I nine		95		180		978 60					
Las Marías 120 15.400 16.887 65.69 Loiza 13.022 500 72.950 13.982 351.36 Maricao 3.289 19.375 83.921 2,150 26.283 407.93 Maricao 1.493 760 76.150 76.76 76.150 76.76 76.150 76.77 76.150 76.77 76.150 76.77 76.71 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.150 76.70 76.70 76.150 76.70 76.70 76.150 76.70					1	52.791						
Loiza 13.022 500 72,650 13,982 351.36 Maniati 3.289 19.375 83,921 2,450 26,283 407.99 Maricao 4.628 67,04 67.04 67.04 67.04 67.04 Maunabo 1.493 760 76.15 76.15 76.15 76.15 76.15 76.15 76.15 76.15 76.20 76.20 76.20 <td>Las Marías</td> <td>120</td> <td>i .</td> <td>15,400</td> <td></td> <td></td> <td></td>	Las Marías	120	i .	15,400								
Manatí 3,289 19,375 83,921 2,450 26,283 407.99 Maricaco 4,628 67,04 6,090 300 11,493 760 76,15 Mayagüez 190 6,090 300 11,485 51,192 317,17 Moroa 25 28,601 123,86 80,00 25,045 329,78 Morovis 3,255 4,500 2,800 25,048 329,78 317,17 Naranjito 8,810 1,900 28,00 25,048 329,78 76,43 29,00 225,048 329,78 76,43 29,00 25,048 329,78 76,43 18,29 9,17 18,29 9,178 16,20 4,50 28,00 25,048 31,17,17 18,29 9,178 16,20 4,50 2,150 2,43 31,17,17 18,29 9,178 16,20 4,43,63 31,17,20 80,31 17,90 43,53 11,17,20 4,50 21,50 21,60 63,51 16,02 44,50 23,55 <td>Loiza</td> <td></td> <td>l</td> <td></td> <td>72.650</td> <td></td> <td>351.36</td>	Loiza		l		72.650		351.36					
Maunabo 1.493 760 76.15 Mayagüez 1.90 6.090 300 11.485 51,192 317.17 Moca 25 25 28.691 123.86 Morovis 3.255 25 28.601 123.86 Naranjito 8.810 15.685 76.13 129.86 Patillas 40 1.000 8.511 188.29 189.40 188.29 189.40 188.29 <td>Manatí</td> <td>3,289</td> <td>19,375</td> <td>83,921</td> <td>2,450</td> <td></td> <td>407.998</td>	Manatí	3,289	19,375	83,921	2,450		407.998					
Mayagüez 190 6.090 300 11.485 51,192 317.17 Mocra 25.729 105,73 25.729 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 105,73 123,86 10,90 25,054 329,78 80,73 15,685 76,131 188,29 128,86 10,91 42,663 11,900 8,511 188,29 188,29 10,20 4,635 11,900 8,511 188,29 19,000 10,000 8,511 188,29 10,000 18,511 188,29 11,000 4,635 11,700 4,636 11,700 10,000 10,000 10,000 14,100 10,000 14,100 10,000 14,100 10,000 14,100 10,000 11,000 14,100 10,000 14,100 10,000 11,000 14,100 10,000 10,000 10,000 10,000 10,000 10,000 11,000 10,000 10,0							67,044					
Moca 25 7.29 105.72 Morovis 3.255 25 28.691 129.86 Naranjito 8.810 2.800 25.054 29.054 Patillas 40 1.900 8.511 188.99 Peñuelas 1.330 120 43.653 117.09 Ponce 425 355 80 340 16.568 97.128 Quebradillas 4.703 80 340 16.568 97.128 Rio Grande 25 15 23.550 10.214 46.028 Rio Piedras 35 72.685 72.763 150 21.609 633.61 Rio Piedras 35 72.685 72.763 150 21.609 633.61 <t< td=""><td>Maunabo</td><td></td><td></td><td></td><td></td><td></td><td>76.159</td></t<>	Maunabo						76.159					
Morovis 3.255 25 28.601 123.86 Naranjito 8.810 1,500 2.800 25.064 329.78 Patillas 40 1,900 8.511 188.29 Peñuelas 1,330 120 43.653 117.99 Ponce 425 355 67.585 829.41 Quebradillas 4.703 80 340 16.568 97.128 Rio Grande 25 15 23.550 10.246 460.28 Rio Grande 25 15 23.550 10.246 460.28 Rio Grande 35 72.685 72.763 150 21.609 633.61 Rio Piedras 35 72.685 72.763 150 21.609 633.61 Salbana Grande 4.630 47.392 91.63 Sallinas 80 25.105 543.29 91.63 San Juan 19.00 652 79.828 204.30 San Juan 16.072 30 15.627 <td>Mayaguez</td> <td></td> <td>6.090</td> <td>300</td> <td>11.485</td> <td>51,192</td> <td>317.171</td>	Mayaguez		6.090	300	11.485	51,192	317.171					
Nagrinbo 4,500 2,800 25,054 329,78 Naranjito 8,810 15,685 76,43 Patillas 40 1,900 8,511 188,29 Peñuelas 1,330 120 43,633 117,09 Ponce 425 355 67,585 829,44 Quebradillas 4,703 80 340 16,568 97,92 Rincón 9,178 16,201 44,90 Rio Grande 25 15 23,550 10,246 460,28 Rio Piedras 35 72,685 72,763 150 21,609 633,61 Rabana Grande 4,630 47,392 91,53 41,392 91,53 San Germán 4,127 860 652 79,828 204,30 San Juan 80 25,105 543,26 36,313 168,44 San Jorenzo 16,072 80 652 79,828 204,30 San Sebastián 50 2,165 18,94 3	Morovic	2 255			95	20,728	100,750					
Naranjito 8.810 blastillas 15.685 blastillas 76.43 blastillas Patillas 40 blastillas 1,000 blastillas 8.511 blast.29 Peñuelas 1,330 blastillas 120 blastillas 43.653 blast.21 blast.29 Ponce Quebradillas 4.703 blastillas 80 340 blast.25 blast.23 blast.21 blast.22 blast.21 blast.21 blast.22 blast.22 blast.23 blast.22 blast.23 blast.24 blast.22 blast.23 blast.22 blast.23 blast.24 blast.22 blast.24 blast.22 blast.23 blast.24 blast.22 blast.24 blast.22 blast.24 blast.22 blast.23 blast.24 blast.22 blast.24 blast.24 blast.22 blast.24	Morovis			4 500		25.051						
Patillas 40 1,900 8,511 188.29 Penuelas 1,330 120 43,653 117,09 Pouce 425 355 67,585 829,61 Quebradillas 4,703 80 340 16,568 97,72 Rincón 9,178 16,201 44,00 16,072 23,550 10,246 460,28 Rio Piedras 35 72,763 150 21,609 633,61 847,392 91,68 Sabana Grande 4,630 27,763 15,027 29,168 543,26 San Linas 80 52,105 543,26 543,26 San Ciermán 4,127 860 652 79,828 204,30 San Juan 50 52 79,828 204,30 36,313 168,43 San Sebastián 50 2165 1,894 399,83 Foa Alta 2,185 1,000 24,670 30 11,704 194,94 Toa Baja 300 21,262 <td< td=""><td>Naranjito</td><td>8.810</td><td></td><td></td><td>2,000</td><td></td><td>76.431</td></td<>	Naranjito	8.810			2,000		76.431					
Peñuelas 1,330 120 43,633 117.09 Pouce	Patillas	40			1,900		188,291					
Quebradillas 4.703 80 340 16.568 97.92 Rincón 25 15 23.550 19.216 44.30 Rio Grande 25 15 23.550 10.246 460.28 Rio Piedras 35 72.685 72.763 150 21.609 633.61 Sabana Grande 4.630 47.302 91.68 salinas 80 25.105 543.26 San Germán 4.127 860 652 79.828 204.30 San Juan 50 15.627 298.27 28.27 28.27 28.27 28.27 28.27 28.27 298.27 28.27 28.27 298.27 298.27 28.27 298.27	Peñuelas	1,330		120			117,090					
Rincón 9.178 16.201 44.90 Río Grande 25 15 23.550 10.246 460.28 Río Fledras 35 72.685 72.763 150 21.609 633.61 Sabana Grande 4.630 47.392 91.63 543.29 91.63 543.29 91.63 543.29 91.63 543.29 91.63 543.29 91.63 543.29 204.30 543.29 204.30 543.29 204.30 543.29 204.30 543.29 204.30 30 15.627 208.27 208.27 208.27 208.27 208.27 208.27 208.27 30 15.627 208.27	Ponce		425			67.585.	829,64					
Rio Grande 25 15 23,550 10,246 460,28 Rio Piedras 35 72,685 72,763 150 21,609 633,61 Sabana Grande 4,630 27,685 72,763 150 21,609 633,61 Salinas 80 25,105 543,26 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,27 548,	Quebradillas					16,568	97,92					
Rio Piedras 35 72,685 72,763 150 21,609 633,61 Sabana Grande 4,630 25,105 543,26 91,63 San Germán 4,127 860 652 79,828 204,30 San Juan 50 58,627 298,27 204,30 San Lorenzo 16,072 36,313 168,44 Santa Isabel 2,165 1,804 399,83 Toa Haja 300 21,262 68,423 10,610 20,111 Frujillo Alto 9,805 13,229 184,24 Utuado 35,115 9,805 13,229 184,24 Vega Alta 674 120 17,260 400 5,547 114,34 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Yeques 150 8,074 672,402 672,402 10,995 361,46 Yauco 9,178 2,400 10,995 361,46 40,43 40,43	Rincón				9,178	16,201	44,909					
Sabana Grande 4,630 47,392 91,63 Sallinas 80 25,105 543,29 San Germán 4,127 860 652 79,828 204,30 San Juan 16,072 15,627 208,27 San Sebastián 50 36,313 168,44 Santa Isabel 2,165 1,804 399,83 Foa Alta 2,185 1,000 24,670 30 11,704 194,94 Toa Baja 300 21,262 68,423 10,640 205,11 Prujillo Alto 35,115 9,805 13,229 184,24 Utuado 35,115 407 5,547 114,30 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Yeques 150 8,074 672,98 672,98 672,98 672,98 672,98 Yauco 9,178 160,380 400,43 400,43	K10 Grande			79.769		21,240						
Sallinas 80 25,105 543,26 San Germán 4.127 860 652 79,828 204,30 San Juan 16,072 15,627 208,27	Rio riedras		72,080	12,705	150	17 209						
San Germán 4.127 860 652 79,828 204,30 San Juan 16,072 15,627 208,27 San Sebastián 50 36,313 168,44 Santa Isabel 2,165 1,804 399,83 Toa Alta 2,185 1,000 24,670 30 11,704 194,94 Toa Baja 300 21,262 68,423 10,640 205,11 Prujillo Alto 9,805 13,229 184,24 Utuado 35,115 9,805 13,229 184,24 Vega Alta 674 120 17,260 400 5,547 114,33 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Vieques 150 8,074 672,98 Yabucoa 9,178 2,400 10,995 361,46 Yauco 9,178 160,380 400,43						95 105						
San Juan 16,072 15,627 208.27 san Sebastián 50 36,313 168,44 sant stabel 2,165 1,894 399,88 Toa Alta 2,185 1,000 24,670 30 11,704 194,94 Toa Baja 300 21,262 68,423 10,640 205,11 Prujillo Alto 9,805 13,229 184,24 Utuado 35,115 147,802 301,209 Vega Alta 674 120 17,260 400 5,547 114,34 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Vieques 150 8,074 672,98 74 672,98 74 74 792,98 74 74 792,98 74 74 792,98 74 74 792,98 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74			860		652							
San Lorenzo 16,072 15,627 298,27 San Sebastián 50 36,313 168,44 Santa Isabel 2,185 1,000 24,670 30 11,704 194,94 Toa Baja 300 21,262 68,423 10,610 205,11 Prujillo Alto 9,805 13,229 184,24 Utuado 35,115 17,260 400 5,547 114,802 Vega Alta 674 120 17,260 400 5,547 114,30 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Vieques 150 8,074 672,00 672,00 672,00 Yabucoa 9,178 2,400 10,995 361,46 Yauco 9,178 160,380 400,43							201,00					
Santa Isabel 2,165 1,804 399,88 Foa Alta 2,185 1,000 24,670 30 11,704 194,94 Foa Baja 300 21,262 68,423 10,640 205,11 Frujillo Alto 9,805 13,229 184,24 Utuado 35,115 147,802 301,20 Vega Alta 674 120 17,260 400 5,547 114,34 Vega Alta 888 24,560 8,252 3,905 9,145 250,56 Vieques 150 8,074 672,98 672,98 672,400 10,995 361,46 Yabucoa 9,178 160,380 400,43 400,43	San Lorenzo	16,072					208,278					
Poa Alta 2.185 1.000 24,670 30 11,704 194,94 Toa Baja 300 21,262 68.423 10,640 205,11 Prujillo Alto 35.115 9,805 13,229 184,24 Utuado 35.115 10,640 205,11 147,802 301,20 Vega Alta 674 120 17,260 400 5,547 114,32 Vega Baja 888 24,560 8,252 3,905 9,145 250,56 Vieques 150 8,074 672,98 Yabucoa 2,400 10,995 361,46 Yauco 9,178 2,400 160,380 400,43	San Sebastián						168,446					
Toa Baja 300 21,262 68.423 10,640 295.11 Frujillo Alto 9.805 13,229 184,24 Utuado 35.115 147.802 301,20 Vega Alta 674 120 17.260 400 5,547 114,31 Vega Baja 888 24,560 8.252 3.905 9,145 250,56 Vieques 150 8,074 672,98 Yabucoa 9,178 160,380 400,43	Santa Isabel	0.10*		04.670		1,894	399.83					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TOR AIIR				30	11,704	194,94					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ruiillo Alto	500	21,262			10,040	194 94					
Vega Alta 674 120 17.260 400 5.547 114,34 Vega Baja 888 24,560 8.252 3.905 9.145 250,56 Vieques 150 8,074 672,98 Yabucoa 2.400 10,995 361,46 Yauco 9,178 160,380 400,43	riajino ano Utuado	35 115		9,009		147 809	301.290					
Vega Baja 888 24,560 8,252 3.905 9,145 250,56 Vieques 150 8,074 672,98 Yabucoa 2,400 10,995 361,46 Yauco 9,178 160,380 400,43	Vega Alta	674	120	17.260	400							
Vieques 150 8,074 672,98 Yabucoa 2,400 10,995 361,46 Yauco 9,178 160,380 400,43	Vega Baja					9,145	250,569					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Vieques		1		150	8,074	672,981					
	Yabucoa	1	[2,400	10,995	361,468					
Marala 1 201 010 100 000 010 010 020 0 010 020 10 10 020	Yauco	9,178				160,380	400,439					
	Totals	1 901 010	183,675	499,139	219.020	2,256,352	18,149,334					

Total assessed value of real property, by municipalities and classes, for the fiscal year 1911—Continued.

		RUF	A L—Cont	inued.	
Municipality.	Timber, brush.	Marsh lands.	Other lands.	Total lands.	Rural houses.
Adjuntas	\$190,652		\$1.210	\$985,244	\$81,249
Aguada	13,989	\$20	12,704	516,499	40,407
Aguadilla	21.254 33,129	268	16,704	357,668 252,858	41,337
Aguadilla Aguas Buenas Aibonito	49,514		5,117 7,783	466,536	19,628 32,528
Añasco	47.882	908	18,270	859,756	70,354
Arecibo	208.670	7,013	10,989	2,305,991	129,470
Arroyo	9,705	1,900		467.802	62, 76 7
Barranquitas	43,181	84	13,741	273.605	21,138
Barros Bayamón	104.304 96.754	3,489	16,161 6.783	437,834 994,467	44,659 124,645
Cabo Rojo	82,948	1.325	66,393	1,085,252	112.284
Caguas	28,449	1	33.752	934,992	68,752
Camuy	68,981	40	430	452,369	73,778
Carolina	23,380	6,790	13,030	900,631	106,812
Cayey	84,583		17,721	735,942	84.524
Ciales	163.890 44.551	600	2,710 7,480	690,017 369,658	106,643 24,164
Coamo	103,223		135	724,460	81,324
Comerío	24,592	190	1,708	313,755	32,546
Corozal	41,607		120	231.799	30.998
Culebra	4,352	900	3,830	72,877 461.782	6,395
Dorado	14.323		208	461.782	32,850
Fajardo	85,492 74,236	6,293 512	22,400 1.180	1.315.768 1.486.468	89.276 37.103
Guayama	58.022	2,880	9,753	691,123	85,218
Gurabo	23.174	2,000	5.410	675.021	20,680
Hatillo	61.894	200	13.789	566,399	53,682
Humacao	28.316	1.706	41,377	1,476,418	69.019
Isabela	49.884	20,030		443,122	68,226
Juana Diaz	$123.648 \\ 50.492$	4,721	25,140 4,132	2,059,514 683,790	168,832 21,958
Juncos	62,740	6,660	26,289	974.513	73,235
Lares	96.242	0,000	6.138	1.019,917	140,191
Las Marías	112,483		8,965	882,047	162,723
Loiza	89,315	11,781	12,445	1,113,642	42,449
Manati	122.885	821	18,631	1.513.197	89,281
Maricao	74,655 9,455		7,210 2,565	729,562 253,907	167,827 18.449
Maunabo Mavagüez	57.921	6,945	13,581	1,584,083	298,229
Moca	34,555	6.932	3,668	352.846	44.382
Morovis	76,593		30,285	364.810	38,079
Naguabo	35.111	3,855	1,381	747.976	40.296
Naranjito	34.471		4,728	176,463	17.101
Patillas Peñuelas	49.652 91.512	350	1,887 6,541	544.042 536,508	26,687 64.105
Ponce	216,919	3,066	105,527	2,769,323	266.570
Quebradillas	99 490	1	6,348	201,697	29.746
Rincón	3,951 55,359		3,100 289	159,198	37.200
Río Grande	55,359	7,235	289	806,096	62,970
Río Piedras	$\frac{49.672}{16,368}$	620	$148,614 \\ 10,095$	1.259.864	121,358 36,763
Sabana Grande	90,591		7,045	307,654 1.398,908	49,050
San Germán	24,010	505	6.205	802,224	161,109
San Juan			174,039	174.039	
San Lorenzo	30,531	10	12,670	384,947	25.195
San Sebastián	24.813	124.858	9.215	734,645	111,027
Santa Isabel	54,374 $16,051$	1,365	340	1,152,418 265,006	43,493 25,584
Toa Alta	36,827	2,725	11,674	759,718	48,893
Toa Baja Trujillo Alto	1,108	2,120	12,120	228,985	28,415
Utuado	346,603	275	15,435	1,607,713	228,054
Vega Alta	38.896		6.631	297,434	7,672
Vega Baja	49,307	3,385	10,184	669,881	34,758
Vega Baja Vieques Yabucoa	25,668 $14,907$	590	$11,829 \\ 9,855$	1.184.934 955.850	68,245 27.32 3
Yauco	14,907 $146,577$	1,950	$9,895 \\ 14,390$	1,524,544	194,230
'					
Totals	4,271,613	223,839	1,120,109	52,728,008	4,873,932

Total assessed value of real property, by municipalities and classes, for the fiscal year 1911—Continued.

	-	RURAL	—Continued		
Municipality.		igs and inery.	Track	Other	Total rea
	Sugar.	Others.	stations.	improve- ments.	
	#5 91E	\$80,370		#9 000	\$ 1,228,2
Adjuntas	\$7,315 238,300	555		\$3,280 1.350	811.9
Aguada	9,405	999		11.150	791.4
Aguas Bnenas	3,100	750		11.100	317.8
Albonito		64.105			665,1
Añasco	152,550	13,495	\$9.000	1,110	1,209.8
recibo	789.420	22.140	125,741	4.280	4,238,
rroyo	154,105				857.
arranquitas					321,
arros		955			516.
ayamón	139.860	179.003	1	13.245	2.566. 1.304,
abo Rojo	2.750	1.000	171,364	100	2,580.
aguas	485.620 16.740	144,518 75	171,504	31,720 1.090	2,580. 579.
amuyarolina	99,654	105.123		5.060	1.392.
aronna	55,053	43,092		0.000	1.155,0
ayeyiales		25,262		2.505	909.
idra		16,425			441.
oamo	6.000	1.555		8,872	1.016.
omerio		465.141			864,
orozal	1,300	2,000		60	301.
ulebra					_99,
orado	7,850		46.100	200	569.
ajardo	853.000	3.500	394,560	250	3,005.
uayama	194.835 95.300	75.530	500	2.450	2.340, 950.
uayanilla	5,000	8.520 148,788	900	14.280	915.
urabo	3,000	455		440	650,
lumacao	986.020	35.030	231.000	110	3,262.
abela	200.020	750	2311000	3,648	559,
nana Díaz	134,300	4.090	1.640	38.896	2.555,
uneos	716.180	46,513	16,700	19,500	1.676.
ajas	23.350	225		1,550	1.082.
ares	10.745	53.614			1,379,
as Marias	3.450	35,171		6,735	1.098,
oíza	677.635	36			1.861,
anati	1,100,073	9,334		1.337	2.978, 1,016.
[aricao	112.725	51.463 2.025		17.798	459.
aunabo	397,693	82.876	200	100 23,911	4,319,
[ayagüez [oca	6.103	710	200	1,115	419,
[orovis	5,105	2.100		100	442,
aguabo	292,463	61,294		100	1.252.
aranjito	300	250		500	208,
atillas	188.100	5.300	2,900		. 822.
eñuelas	15,000	1.453	10,000	9.950	676.
once	680,830	185.588	171.816	54,281	8.763.
uebradillas		1.175		860	269,
incón	45,850	1,500		27,650	277. 974.
io Grande	18,316			800	974.
ío Piedras	0.000	12,650	440,351	400	2,391, 437.
abana Grande	9,300 632,065	16,000		2,300	2.196.
alinasan Germán	4,975	2,380		330	1.309.
an Juan	389,463	366,496	328.300	550	14,316,
an Lorenzo	100	11,319	35,000		549,
an Sebastián	3,334	3,175	2,050	4.869	925.
anta Isabel	576.310	6,400			1.839.
oa Alta	5,650	500			347,
oa Baja	103,000	3,600		600	973,
rujillo Alto			156,208		429.
tuado	12,441	95,390		1,000	2,172.
ega Altaega Baja	209.850		45,000		593,
ega Baja	96.000		40 000		919, 1,889,
ieques	454,920		42,000		1,889,
abucoa	306.850 1,748,435	79.230	106,300	39,369	4,034.
auco	1,740,430	10.250		99,009	4,004,
	12,836,472	2,601,011	2,374,926	687.341	105,812.

. Total assessed value of personal property, by

Corrected to

	,					
Municipality.	Money.	Merchan- dise.	Sattle.	Horses.	Mules.	ź
	Mo	Me	Carl	Ho	Mu	Pigs.
4.35		-				
Adjuntas	\$2,766 121.636			\$14,779 7.148	\$7,860	
Aguada Aguadilla Aguas Buenas	15,300	179,066	38.822	14.324		\$68 402
Aguas Buenas	824	11,546	i = 22.92i	4,139	100	8
Aibouito	1	28,739 48,141	31.068 32,434	7.154 5,329		62
Arecibo	38,628	561,959	127,073	34,325		78 205
Arrovo	99 789		50.469	8,175	17	23
Barros	542 230	6.305 6.105	22.739 16,059	6.140 5,675		68
Barranquitas Barros Bayamón	16.037	158,975	130.327	27.344	730 1,350	216 442
Cabo Rojo Cagnas	5.818	22,234	94,464	11.800	150	317
Camuy	18,601	253,458 14,067	121.505 52.860	17.044 12,301	1,880 2,470	396
Carolina	3 755	52,220	171.689	22,050	2.470 465	396 161
Cayey Ciales	58,620	97.591	43,364	14.853	3.897	172
Cidra	100 300	18,989 4,370	22.792 23.601	12.248 6.872	5,180 250	116 35
Coamo	7,987	45,882	126,301	32.039	13.258	248
Corozal		14.151	21,210	7.504	1.609	62
Culebra		14.564 2,145	46.750 25.633	9,347 2,335	245 20	287 39
Dorado		7,701	36,045	10,379	672	73
Guayama	22,528 24,076	173,375 222,250	108,103	23,744	561	258
Guayanilla	1.500	20,464	138.968 50.254	27.845 8,718	911 2,178	120 104
Gurabo		17,505	79.078	9.492	155	300
Hatillo	43,415	4,210	78,379	17.560	680	340
Isabela	45.415	137,489 18,653	180,257 64,090	28,569 13,913	350 20	335 467
Humacao Isabela Juana Diaz	10,020	67,571	116.623	25,205	4,943	169
Juncos Lajas	14.871	104,304 10,208	86.269 99.712	6.948	6,750	58
Lares	590 870	31,975	21.010	13,879 14,534	3,975	391 431
Lares. Las Marías.	510	3.085	4.077	7.449	3,713	122
Loiza	28,565 10.681	18.055 110.774	92.844 95.742	14.192	822	279
Maricao	3,600	7.592	3.444	23,133 6,472	2,365 3,570	138 44
Maunabo	1,665 137,284	20,555	50,401	4.887		
Mayagüez	137,284	601,909 4,387	51,321 21.956	22.112 7 ,9 57	2,029	108
Moca	1,760	4,633	37.334	9.170	310 1.240	61 67
Naguabo	11,414	44,848	114,082	24.858	1.680	102
Naranjito Patillas Peñuelas	500	1.610 31.069	21,927 43,840	$6.570 \\ 10.616$	115 158	160
Peñuelas	650	7,704	36,872	7.066	1.545	$\frac{68}{136}$
Ponce	409,651	1,539,237	159,510	41.154	21,076	193
Quebradlllas Rincón	100	9.800 7.035	33.783 23,901	8,617 4.955	1.062	226
Río Grande	4.642	38.069	115.595	$\frac{4.955}{16,391}$	1.170	139 141
Rio Fieuras	5,360	71,814	164.573	27,286	2.185	101
Sabana Grande	500 3,566	16,690 26,567	50,020 165,728	8,320 21.580	675 1,493	
San Germán	83,131	26,567 $127,583$	165,728 84,279	14.824	615	157 291
San Juan	741,713	3,133,548	4,060	7,869	6,300	
San Lorenzo	$\frac{4,512}{640}$	31,311 22,068	105,226 31,786	$\frac{11,482}{13,523}$	1.280	192
Santa Isabel	750	17.835	73.131	10.904	1.200	158 143
Toa Alta Toa Baja	1,666	15,626	42,765 45,991	5.758	50	131
Trujillo Alto	961	30,872 3,850	$45,991 \\ 64,612$	$\frac{5.664}{11,133}$	2,420 500	$\frac{24}{44}$
Utuado	3,027	61.456	32,864	25,231	12,306	$\frac{44}{573}$
Vega Alta Vega Baja Vieques	545	15,353	26,667	5,966	15	154
Viegues	$9,797 \mid 1.012 \mid$	36,230 58,265	41.564 141.309	9,338 12,109	91 50	119 66
rabucoa	1,668	70,996	79,425	14,009	415	
Yauco	36,370	189,584	69,450	19,246	6,023	326
Totals	1,947,585	8,843,449	4,464,389	923,546	139,944	10,944

Municipalities and classes, for the fiscal year 1911.

August 23, 1910.

				Machinery.					Grand total real and personal.
	Automo- biles.	Coaches,	Other vehicles.	ii	Rolling stock.	<u>∞</u>	Other property.	Total personal property.	12 E
Sheep.	tor les	e	er	l ep	표정	Vessels.	er pe	Total persor	E 200
ž	1 io	Õ	E e	-F	50	ě	1 E C	ro	ra ea er:
3,	1	~	100	1	l s		02	Had	944
		24.400	24 005						
\$7 111		\$1.100	1	\$8		\$20	\$1.701 10.897	\$70.755 206.588	1.010 500
111	\$150	690	2.062	110		8,207	10.397 27.106 1.005	286.410	1.077,827
13		410 325	295 680				$\begin{array}{c c} . & 1.005 \\ . & 26.123 \end{array}$	200.863 286.410 41.248 99.796 107.164 1,411.934 181.038 37,878	1.077,827 358,574 761,989 1.317,045
6		800	3,100	15	\$11.450	33	5.208	107.164	1.317.045
16 52	500 2,000	3.340 545	11.930	2.228	38,453	5.037	585,155	1,411.934	5.650,627 1.038,167
1	2,000	300	10.584 40		5,900	8.965	15,581 1.695	181.038	1.038.167 359.057
12	1.500		1	8				30.200	
31 373	1.500	2.700	6.562	680 90	17.340	19.450	98.835	181 586	3,048,170 1,451,717 3,171,719
5/5	4,375	575 3.910	4.010 3,686	1 90	57,400	295	6.765	147,221 591,434	1.451.717
60		540	4.650	375	2,000	200	109.572 17.854	105.578	685.095
238		560 2.460	9,220 1,110	600 30	2,000	200	19.236	105.573 282.394 257.241	685.095 1,674.520 1.412.263
29 22		150	396		690	.100	34.165 3.725	257.241 71.043	1.412.263 980,740
		175	295	1			3.725 8.303	44.201	486.191
226		2.105 100	1.510 180	480			6.837	236.873	1.253.217 918.007
22 55		310	240	277			7.013 1.219	53.019 73.791	375 176
55			İ		23.650	. 395	400	31.022 96.858	130.395 666,553 4,822.217
182 -46	1,200	640 510	1.861 22,664		23.650 128.100	170 18,054	15,485 1,317,574	96.858	666,553
152	7.450	3.326	8.814	3,890		270	29.880	1.816.717	2,808.628
33	5.650	565	3.116	7.050	1.250	2,960	5.223	109.062	1.059,426 1.027.577
14 20		1,850 350	3.480 4.234				225	96.858 1.816.717 467.952 109.062 112.099 106.293 506.995	1.027.577
96	900	3,710	-4.076	5.105	73.000		520 · 118.933	100.293 596.235	756,868 3,858,396
61		585 2.440	2 466 12.109	110		20	1.479	596,235 102,160	661.862 2,816.528
149 31		2.440 885	12.109 3,175	18	2.800	60	18.547 5.937	260.654 229.228	2,816,528 1,905,699
276		125	4,005	360			1.390	131,006	1,213,134
58 156	2.000		25 210	245 923			13.264	88 387	1,213.134 1,467.426 1.119.301
91		260	2.845		60 300	380	58.457	20.807 217.090	1.119.301
36		1,410	17,495	4,402	4.396		136,581	407 156	2.078,853 3,385.835 1.048,323
5		630	130 8,285	5,851	600		1.022	31,730 93,798 1,017,739 40,294	1.048,323
118	9.200	6,190	9.130	34,103	000	10,043	6,775 134,192	1.017.739	552.859 5,336.826
22 4	250	490	2.846	17			758	40.294	460,183
77	1,200	775	802 4,244	35 750	35,661	2.250	182 81.381	55.197 323.297	497,361 1.575,964
15	1,200		180	170	55,001	2.250	180	30.927	239.768
59			5,415				180 24.746	30.927 116.412	239,768 939.211
92	28,656	250 18,175	3.495 33.265	215 77.960	51,930	51,465	4.811 470.956	62.803 2.903.320	738.894 11,666.433
80		915	33,265 2.420	110		108	1.427	58,440	328.379 320.910
3		278	1 - 3.750	1.000 1.458	500	108	2,190	58,440 43,178 185,380	320.910
189	1,800	5,115	4.290 5.150	1.496	31.455	40	2,803 41,182 2,642 115,429	185.580 356.210	$\begin{array}{c} 1.160.212 \\ 2.747.832 \end{array}$
		815	2,470				2,642	356.210 82,132 351,034	519.554
519 103	3.100	1,480 825	5.565 3.956	50 1,974	8,900		115.429 25.791	351,034	519.554 2.547,863 1,655.709
	20.975	2,675	6.231 2.352	135.278	100	126,600	4,759.616	346,472 8,944,965 157,610 73,267	23,261.268
26 11	320	760	2.352	200		10	1.549	157,610	23,261.268 706,620
71	500	390 530	646 6.468	460 2.000	25 21,220	10 75	1,950 171,843	73,267 $305,470$	999.170 2,144.512
4			1.020	1			6,964 12,340	73,984 104.960	421,564
21	500	890	3,635	10	850	1.282	12.340	104.960	421,564 1,078,416 512.154
148	200	$\frac{240}{1,305}$	$1,360 \\ 1.530$	2.166	225		$\frac{442}{12.872}$	82,906 153,678	512.154 2,326,500
75	300		7.135	38,650			840	95.700	689,296 1,030.611
51 202	120	30 495	2,460	200	4,000	15,885	6.857	104.960 82.906 153,678 95.700 110.657 506,781	1,030.611
		1.565	$7,460 \\ 2,180$		27,050 6,330 169,123		242.678 179.911	356 499	2.395,985 1,884.502
63	1.800	1,450	2,530	52.091	169,123	610	179,911 164,338	356,499 713.004	4.747.812
4,636	94,946	84,059	295.646	389,202	724,918	272,964	9.191.780	27,388,008	133,200,357
-,		52,000		330,202	.21.010	272,004	0.101.100	21,000,000	100,200,001

Average value of cultivated land (per acre)

Corrected to

*** IN THE RESIDENCE THE PROPERTY OF THE PROPE					R	EAL	PRO	PERT
Municipality,	Cane.	Coffee.	To- bacco.	Pine- apples.	Or- anges.	Coco- nuts.	Minor fruits.	Pas- ture.
Adjuntas	\$62.77	\$ 55.39					\$27.23	\$16.20
Aguada	88.25	40.75	\$17.83			\$60.77	18.21	13.38
Aguadilla	78.82 78.67	28.37 34.21	20.93 37.79			56.22	16.80	12.48
Aguas Buenas	35.83	37.16	90.94			20.00	18.53 21.29	12.88 15.07
Añasco	96.33	47.09				73.95	19.69	17.20
Arecibo	130.48	41.69	41.93	\$126.52	\$60.60	63.11	20.95	22.21
Arroyo	126.41	40.06	40.00			40.00	30.23	28.13
Barranquitas	37.43 35.00	40.87 29.73	56.84 32.12				17.63 13.32	10.97 10.39
Bayamón	72.80	33.53	25.61	106.05	61.19	35.34	16.13	23.34
Cabo Rojo	81.73	30.49	44.44		200.00	71.49	19.11	20.34
Caguas	87.84	33.65	73.97	200.00		38.00	19.24	19.98
Camuy	56.94	37.41	35.44	54.57		60,00	20.86	19.69
Carolina	83.70 50.00	40.87 35.78	20.00 97.89	100,00		47.78	22.79 21.45	24.55 18.06
Ciales	43.30	55.53	45.86				19.86	15.14
Cidra	50.00	35.47	73.45				16.70	12.78
Coamo	49.33	33.93	30.00				36.50	13.31
Comerio	25.00	40.18	48.68				17.42	14.78
Corozal	41.48	34.53	37.82				14.21	9.45
Dorado	85,76	21.04		115.29	54.09	75.00	10.00 13.15	$16.49 \\ 24.12$
Fajardo	84.07	22.32	20.00	110.20	300.00	51.37	17.63	20.04
Guayama	113.48	73.05	25.00			46.74	20.01	27.15
Guayanilla	172.20 91.71	51.15	43.24			80.00	26.04	16,56
GuraboHatillo	73.57	30.04 40.34	97.86 46.76			75.71	16.06	22.86
Humacao	71.19	33.77	34.57	75.00		103,14	43.95 13.96	26.25 23.86
Isabela	44.89	31.66	34.56			31.67	21.92	18.01
Juana Diaz	124.67	51.38	48.35			30.00	23.10	20.52
Juncos	95.45	28.21	32.93				16.83	39.74
Lajas	80.52 60.00	39,43 58,12	31.00 30.00	50.00		60.00	$20.21 \\ 16.52$	20.56
Las Marías	68.95	48.32	40.00		50.00		18.85	$\frac{14}{14.72}$
LOIZA	124.86	60,32	35.10		50.00	74.90	17.13	21.00
Manatí	105.26	42.93	33.56	91.39	62.53	74.24	16.52	23.16
Maricao	60.00	53.19					23.73	15.31
Maunabo Mayagüez	75.28 90.24	$ \begin{array}{c c} 28.22 \\ 53.21 \end{array} $	38.00	138.40	100.00	29.86	$\frac{18.54}{28.28}$	10.81 22.72
Moca	42 82	51.52	56.00	158.40	100.00	78.66	17.70	11.58
Morovis	66.00	51.56	39.70			50.00	21.28	13.98
Naguabo	67.74	49.21			45.00	50.00	28.96	21.30
Naranjito	60.00	34.73	25.03				14.83	10.09
Patillas	$90.05 \\ 117.68$	$33.61 \\ 42.51$	$20.00 \\ 41.56$			45.24	$\frac{15.47}{18.97}$	14.82
Peñuelas Ponce	112.52	43.08	47.00	8.17	20.00 88.75		23.32	$\frac{15.45}{30.52}$
Quebradillas	47.79	42.54	24.88	0.17	80.00	42.50	20.58	16.35
Rincón Río Grande	70.54	46,06				52.75	19.08	10,14
Rio Grande	73.21 96.83	32.74	25.00	30.00		62.80	16.96	20.05
Río Piedras Sabana Grande	62.13	52.91 45.03	35.00 34.30	126.19	92.81	150.00	20.74 + 20.72	29.27 1J.33
Salinas	97.03	31.14	20.00				14.95	21.63
Salinas San Germán	83.09	45.16	49 13	28.67		27.17	20.25	13.83
San Juan								
San Lorenzo	58.15	30.39	44.40	4			14.04	10.23
San Sebastian	50.75 128.20	46.86	16.67			98.41	18.31	$\frac{12.06}{33.32}$
Santa Isabel Toa Alta	101.68	40,45	57.46	100.00	68.72	10.00	$\frac{38.65}{14.79}$	$\frac{53.52}{17.28}$
Toa Baja	104.07	16.92	42.86	107.93	86.50	10.00	31.67	30.31
Trullilo Alto	46.23	46.78			83.09		20.01	17.11
Utuado	89.66	42.64	52.49				16.96	12,62
Vega Alta	103.19	32.33	17.28	120.00	28.81	100.00	13.05	21,86
Vega Baja	88.53 68.88	25.43	15.86	99.43	38.92	75.10 50.00	13.25 31.05	$21.49 \\ 33.02$
Vieques Yabucoa	91.81	42.69				60.00	32.53	55.02 19.24
Yauco	111.69	46.67	39.06			00.00	22.08	15.95
								-
General average	94.86	47.35	65.96	106.79	67.51	65.56	19.52	19.58

and live stock for the fiscal year 1911.

August 23, 1910.

Υ.					PERSON	NAL PRO	OFERTY.	
Timber, brush.	Marsh lands.	Other lands.	Total.	Cattle.	Horses.	Mules.	Pigs.	Sheep.
\$10.49 7.76		\$11.75	\$23.33	\$25.02	\$32.48	\$49.75		
7.76 5.56	\$5.00 5.15	20.33 12.91	32.77 17.80	32.36 22.18	28.80 24.57	30.00	\$4.53 2.17	\$1.00 1.6
6 07		13.05	13.62	24.81	25.55	50.00	2.67	
10.02 9.67	18,49	22.17 19.95	23.79 35.86	22.51 34.50	23.77 28.81	23,75 27,14	2.58 3.25	1.3 2.0
6.43	9.84	24.26	30.72	29.17	25.73	62.96	4.46	1.1
8.98	10.00	24,76	51.65 13.51	35.84 20.43	30.17 24.96	5.67	1.92	1.0
$\frac{7.67}{7.15}$	6.00	13.74	11.32	19.37	21.17	50.00 25.17	2.72 4.08	$\frac{1.0}{2.0}$
15.36	4.87	37.68	24.96	21.49	27.37	56.25	4.38	1.7
$\frac{8.07}{6.51}$	8.60	37.22 36.97	26.44 25.22	25.18 23.03	25.27 31.33	75.00 85.45	2.21	1.5
6.81	5.00	13,44 51,71	18.02	26.66	23,25	38.59	2.71	1.0
$12.44 \\ 8.42$	10.06	51.71 53.54	$\frac{32.81}{24.22}$	25.69 24.65	26.60 29.18	27.35 49.96	32,20 3,25	29.7
6.88	15.00	20.07	17.08	23.82	29.44	44.27	3.87	1.2 1.0
8.60		34.00	17.98	23.16	24.63	50.00	2.92	1
$\frac{10.17}{7.46}$	5.43	6.75 38,60	$\frac{15.04}{18.80}$	24.52 23.97	26.00 26.42	$32.98 \\ 32.18$	2.12 3.26	1.0
6.15		15.00	9.95	19.41	21.74	35.00	2.19	1.2
$6.26 \\ 8.62$	3.00	15.70 20.80	$\frac{14.26}{35.33}$	16.51 25.01	18.10 23.06	10.00 74.67	2.60 6.64	1.6 1.7
11,17	6.40	44.80	31.21 . 38.39	27 20	23.84 31.29	29.53	2.84	1.4
11.17 8.29 6.24	4.27	6.59	. 38.39	28.61	31.29	29.53 27.61	3.75	2.1
9.00	4.83	14.16 46.24	$\frac{29.05}{39.22}$	31.76 31.82	$30.27 \\ 25.52$	48,40 25,83	2.12 3.41	1.1 1.0
7.62	18.18	46.24 27.20	22.97	28.00	31.41	45.33	10,00	5.0
13.59 5.07	14.10 22.79	34.92	$\frac{34.51}{15.99}$	22.39 25.82	$47.23 \\ 25.67$	25,00 10.00	2.28 2.65	1.1 1.9
10.92	6.03	27.51	34.37	26.96	23.80	32.52	2.22	1.8
31.80 9.65	10.37	44.91 30.86	$\frac{41.66}{27.07}$	35,24 22,62	33.09 18.33	125.00 23.33	2.23 1.69	1.7
9.11	10.57	14.01	26.91	22.47	26,23	34.87	2.89	1.6 1.3
10.34 18.75 7.32	7.64	27.08	28.87 36.69	25,80	31,70	32.86	2.98	1.9
18.75 7.32	4.61	59.55 27.52	32.03	23.57 26.89	25.43 26,90	54.80 81.55	2.85 2.65	2.3 2.7
11.56		19.18	32.81	24.08	31.42	55.78	2.32	1.0
5.91 14.06	56,93	20.36 42.31	$\frac{22.92}{43.14}$	31.68 27.85	26.70 29.33	38.28	2.04	3,1
5.41	7.02	9.63	16.04	28.63	28.52	34.44	2.77 2.23	1.0
7.13	5.99	52.38 115.08	15.51	21.32	24.65	41.72	2.23	1.0 1.7
8.15 6.65	5.99	8.26	$\frac{28.14}{11.18}$	24.72 20.10	26.41 21.54	168.00 38.33	2.83 3.08	1.7 2.5
5.61		5.09	20.81	60.80	26.88	39.50	2.06	
6.87 11.25	12.50 3.05	17.68 44.87	39.74 39.41	29.62 33.72	25,88 33,35	38.63 104.34	2,34 2,61	$1.5 \\ 1.4$
$\frac{11.25}{6.75}$		13.34	16.84	24.64	25,88	66.38	2.54	1.5
$\frac{7.45}{6.18}$	6.94	77.50 33,44	$\frac{22.08}{21.23}$	26.24 25.57	$28.31 \\ 24.28$	83.57	3.76	
36.55	4.96	48.08	$\frac{21.25}{40.02}$	29.08	32,48	109.25	$\frac{2.71}{4.21}$	1.5 3.7
4.04		4.62	15.41	23.11	27.46	56.95		1
11.10 6.25	2.01	37.67 21.03	$\frac{32.78}{26.52}$	26.14 25.75	29.16 27.50	53.32 47.31	$\frac{2.34}{1.82}$	1.7 1.9
		138.13	138.13	33.01	48.88	196.88	1	1
$\frac{4.77}{8.11}$	10.00 8.98	45.09 15.06	$\frac{12.58}{17.74}$	21.71 20.76	$24.53 \\ 24.63$	44.14	2.34 2.29	.9
12.28	3.14	16.19	51.56	33,27	29.39		3,11	1.3 1.7
8.53			18.21	23.61	24.09	50.00	2.98	1.0
$\frac{18.55}{11.42}$	6.31	20.20 51.14	$50.73 \\ 18.98$	$24.52 \\ 25.88$	31,64 30.17	161.33 100.00	2.18 2.31	1.6
7.62	3.40	7.60	16.36	21.89	27.73	46.97	2.63	1.4
$\frac{5.47}{6.06}$	3.42	13.76 22.53	$19.70 \\ 25.68$	27.49 22.65	$\frac{28.27}{25.17}$	15.00 30.33	2.61 2.64	12.5 2.6
9.03		11.70	37.90	27.94	25.76	12.50	2.64	2.6
4.40 7.96	$\frac{11.13}{2.52}$	14.67 95,30	32.58 24.50	30.29	30.92	46.11 39.37	. 	
			24.50	24.80	24.24		7.09	1.1'
8.29	7.77	30.16	26.50	25.97	27.03	51.51	2.77	1.7

Gross receipts of municipalities, detailed by sources and destination, fiscal year 1910-11.

	The state of the s				
Items	Total	Ordinary funds	Road funds	Bond redemption and sinking funds	On account of debt
Totals	\$1,697,627.29	\$1,410,677.70	\$91,363.55	\$176,386.04	\$19,200.00
General revenues\$1,430,456.55	1,205,296.86				
Property taxes	1,073,519.46 131,699.70 777.70	824,004.04 $131,699.70$ 77.70	91,363.55	158,151.87	
Licenses and permits	195,317.72	ţ			
Business licenses. Dog and other licenses Permits	182,356.24 787.13 12,174.35	$182,356.24 \\ 787.13 \\ 12,174.35$			
Fines	20,894.11	20,894.11			
Subventions, grants and gifts	4,032.99	4,032.99			
Miscellaneous	4,914.87	4,914.87	•		
Commercial revenues\$267,170.74 Department services	42,914.75		N LAA		
Maintenance of insular prisoners. Transportation of patients to asylums. Fees and charges. Rents.	13,306,32, 326.92 10,466.75 11,001.47 7,813.29	13,306,32 326,92 10,466.75 11,001,47 7,813,29			

Privileges	\$2,532.91	\$2,532.91			
Interest	21,303.42	3,069.25		\$18,234.17	
Public-service enterprises	181,219.66		-		
Water-supply systems Electric light plants Markets Slanchter houses	118,399.66 7,772.95 28,322.62 9,403.17	118,399.66 7,772.95 28,322.62 9,403.17			
Meat shops Animal pounds Cemeteries	6,177.88 8,327.49 7,665.30	6,177.88 8,327.49 7,665.30			
Theaters Others	1,476.34 674.25	· 1,476.34 674.25			
Receipts on account of debt	19,200.00		The second secon	The second state of the second state of the	\$19,200.00
Total current receipts	1,697,627.29 1,045,249.66	1,410,677.70	\$91,363.55 34,250.86	176,386.04 628,206.47	19,200.00 220,007.02
Fotal available for expenditure.	$2,742,876.95\\1,508,229.46$	$1,573,463.01\\1,330,492.94$	125,614.41 83,423.56	804,592.51 66,018.50	239,207.02 28,294.46
Cash on hand, June 30, 1911	1,234,647.49	242,970.07	42,190.85	738,574.01	210,912.56

Detailed expenditures of municipalities, fiscal year 1910-I1

Totals	20141						
Total		E	xpenses			0.41	On.
Totals	Department or service				Interest.	Outlays.	of debt.
Totals \$1,508,229.46 \$1,134,638.15 \$350,917.17	OI SOLTED						
Secontive and finance offices 220,624.85 191.097.08 29.527.77 3.800.44 2.06 2.0	Totals\$1,508,229.46	\$1,154,638.15	\$559,917.19	\$594,720.96	\$76,558.40		\$108,895.19
Executive and financo offices 220,624.85 191.097.08 29.527.77 3.800.44 2.06 2.06 2.00 2.499.62 3.00 2.499.62 3.00 2.00 3.	Coneral Goverment.	317.312.08	245,997.10	71,314.98		27.711.99	6,635.79
Engla services and costs 25,319.62 2,850.00 2.199.62 3.124.74 26.130.92 33,897.70 4.12 31,303.28 34,910.14 33,603.29 379.54 31.885 717 71 71 71 71 71 71	Erocutive and	200 404 05	101 007 09	90 597 77		3.800.44	2,060.94
and costs. 3,355,66 3,124,74 26,130,92 23,897,70 4,12 Courts 34,910,14 33,603,28 1,306,86 13,85 12 Cryolity register 17,701,54 15,322,00 379,54 12 Protection of life and property 21,133,52 4,413,88 16,719,64 345,99 42 Fire Department 44,133,52 4,413,88 16,719,64 345,99 42 Health Conservation and sanitation 43,478,95 86,509,05 56,969,90 2,871,55 3,25 Supervision and inspection 4,143,478,95 86,509,05 56,969,90 2,871,55 3,25 Supervision and inspection 4,143,478,95 86,509,05 56,969,90 2,871,55 3,25 Street cleaning and refuse disposal 5,242,07 3,244,67 3,244,67 3,244,67 3,244,67 3,244,67 3,244,67 3,244,67 3,244,67 117,24 5,947,16 1,006,21 2 1 1 1,006,21 3 1 3,94 3,94 3,94 3,94	anance offices	220,624.85	191.097.08			.,	17.65
Municipal billouing Ings	and oneig	5,319.62	2,850.00	2.499.62			
Courts 13,490.14 13,3603.28 13,306.35 129,000 129,000 114,000.27 11,470.27 12,000 116,	Municipal bulla-	29.255.66	3,124.74				$\frac{4.128.45}{175.00}$
Traveling externests	(Claureta	34,910 14	33,603,28			15.69	127.50
Protection of life and property. Protection of life and property. Price begartment. Health Conservation and sanitation. Supervision and inspection. Anemia Service. Sewers and sewage disposal. Street cleaning and refuse disposal. Highways. Street cleaning and property. Street sprinkling. Street sprinkling. Street sprinkling. Street lighting. Vecinal and rural roads. Charities and corrections. Outdoor poor re lief. Misc ellaneous. Outdoor poor re lief. Misc ellaneous. Charities and relief stations. Misc ellaneous. 11,598.05 139.235.87 14,413.88 16,719.64 164,718.85 161.06 1833.30 1.994.80 5.22 26 3.244.67 3.245.90 48,651.32 12,861.29 46,651.81 12,861.29 12,861.29 14,195.59 3.292.00 10,903.59 466.18 8 10,00 11,10,10,10,10,10,10,10,10,10,10,10,10,1	Civil register	15,701.54	15,322,00				126.25
Protection of life and property 21,133.52 4.413.88 16,719.64 345.99 42 142,133.52 4.413.88 16,719.64 345.99 42 142,133.52 4.413.88 16,719.64 345.99 42 142,133.52 4.413.88 16,719.64 345.99 42 142,133.52 4.413.88 16,719.64 345.99 42 142,135.75 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,719.64 345.99 42 14,135.89 16,369.90 2,871.55 3,2	Traveling ex-	11,470.27		11.470.27			120.29
## A property 21.133.52	Wrotection of life	24 100 70	4 419 00	16 719 64		345.99	423.47
He alth Conservation and sanitation 143,478.95 86,509.05 56,969.90 2,871.55 3,25	and property					345.99	423.47
tion and sain tation. Supervision and inspection. Anemia Service. Sewers and sewage disposal. Street cleaning and refuse disposal. Street cleaning and refuse disposal. Street spinkling. Streets spinkling. Street sprinkling. Street sprinkling. Street lighting. Vecinal and rural roads. Charities and corrections Outdoor poor relief. Self-self-self-self-self-self-self-self-s	Fire Department	21.155.52	1,119,00				
Supervision and inspection	Health Conserva-					9 871 55	3,257.17
Inspection	tation	143,478.95	86,509.05	56,969.90			
Inspective Sewers and sewage disposal 3,244.67	Supervision and	65 359 91	64,748,85				391.66 260.50
Sewers and Sewers age disposal. 3,244.67 3.244.67 Street cleaning and refuse disposal. 6,684.87 16,564.99 49,116.88 1,796.30 2,56 1,006.21 1,00	Anomia Service	3,128.10	1,833.30	1,294.80		5.22	200.50
age disposal. Street cleaning and refuse disposal. Miscellaneous. 265,378.00 21,647.21 213,730.79 84,530.28 84,530.28 84,530.28 84,530.28 84,530.28 84,530.28 84,530.28 84,530.28 84,530.28 81,7731.21 86,679.07 84,667,90.07 84,6	Compre and Sew-	9 214 67	3.244.67			. 	10.50
and refuse disposal. 65,681.87 16,564.99 49,116.88 17,063.0 2.5 Miscellaneous. 265,378.00 21,647.21 213,730.79 699.96 93,626.80 11,30 Streets, sidewalks and plazas. Street sprinkling. 2,131.06 324.00 1.807.06 671.00 20 Street sprinkling. Vecinal and rural roads. 65,099.39 2,570.00 62,529.39 699.96 21,633.11 5,98 Charities and corrections 01,500.00 112,515.27 2,624.59 1,11 Charities and corrections 01,500.00 12,50	oge disposal	5,211.07	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Dosal	and refuse dis-	65 681 87	16.564.99		·	1,796.30	2,562.05
Street sidewalks and plazas Street sprinkling 13,617.27 1,022.00 112,595.27 2,621.59 1,11	posal		117.24				32.46 11,301,44
Streets, sidewalks and plazas Street sprinkling Street sprinkling Street sprinkling Street lighting Street l		265,378.00	21,647.21	243,730.79	699.96	95,020.00	FF, 106, 11
And plazas Street sprinkling Street lighting Vecinal and rural roads	Streets sidewalks	04 500 00	17 791 91	66 799 07			3,996.52
Street lighting	and blazas	0.404.00		1.807.06			200.00 1,113.57
Vecinal and Total roads. 65,099.39 2,570.00 62,529.39 699.96 21,555.11 3,5 Charities and corrections 311,598.05 139,235.87 172,362.18 5,052.37 5,05 Outdoor poor re lief 66,512.61 48,651.32 12,861.29 5,052.37 5,00 Modicines 64,051.64 9,075.10 51,976.54 57.15 1,26 Miscellane ous charities 3,580.11	Street lighting		1,022.00	112,595.27			
Charities and corrections	Vecinal and rurar	65,000,20	2,570.00	62,529.39	699.96	21,633.11	5,991,35
Tections	roads			450,000,10		5 052 37	5,008.63
Outdoor poor relief. 61,512.61 (48,651.32) (48,651.32) (51,976.54) 12,861.29 (51,976.54) 57.15 1,20 (51,976.54) Medicines	rections	311,598.05	139,235,87	172.362.18		0,002.01	
Hef. Medicines 64,051.61 9,075.10 51,976.54 57.15 1.24 Poor in institutions 14,195.59 3,292.00 10,903.59 466.18 8 Misc ellaneous charitles 3,580.11 3.580.11 1.54 Hospitals and relief stations 37,153.47 16,727.48 20,425.99 147.87 1.54 Jalls 37,153.47 16,727.48 20,425.99 355.30 2,4 Education 4,990.79 3,472.50 612.00 612.00 612.00 115.30 Libraries 3,883.79 3,472.50 411.99 115.30 240.00 240.00 240.00 240.00 240.00 Miscellaneous 495.00 495.00 495.00 500.00 500.00 Plar grounds 411.34 6,164.25 2,917.09 863.12 Bath, bathhouses etc Celebrations and entertainments 5,961.87 5,961.87 75,858.44 1.471.41 73.68 Miscellaneous 7,961.87 75,858.4	Outdoor poor re-	1	48.651.32	12,861.29			93.91
Poor in institutions	lief			54,976.54		57.15	1,209.13
tions Miscellaneous charities. 3.580.11 3.580.11 10.580.11 <td>Poor in institu-</td> <td>1.1.105.50</td> <td>3 292.00</td> <td>10,903.59</td> <td></td> <td>466.18</td> <td>819,19</td>	Poor in institu-	1.1.105.50	3 292.00	10,903.59		466.18	819,19
3,580,11 3,580,11	tions	•	0,202.00	0.500.11			182.07
Hospitals and relief 131,101,63 61,489,97 69,611,65 43,817 20,425,09 147,87 1	oborities	. 3.000.11			i		
Table	Hospitals and re-			69,614.66		1 4 4 5 0 7	2,559.03 145,30
Education	Jails	37,153.47	16,727.48	1	1	955 90	2,450,08
Scholarships 3,883.79 3,472.50 411.99 115.30 2.24.00 2.4 Libraries 3,883.79 3,472.50 495.00 29.00 2,00 2,0 3,0	Education	4,990.79		1			
April	Scholarships	. 612.00		411.29)	115.30	2,450.08
Recreation	Libraries	495.00		1	.	1 969 19	141.70
Playgrounds		12,488.11	January of the second			=00.00	
Music 81.00 891.00 891.00 891.00 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 3 <td>Playgrounds</td> <td>50.00</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Playgrounds	50.00					
etc	Music	0,111.					
entertainments 5.961.87 5.961.87 75,858.44 1.471.41 73.6 Miscellaneous 5.961.87 5.961.87 83.39.19 6.0	ata	891.00	891.00			1	
Miscellaneous 5.961.87 5.961.87 75,858.44 1.441.41 650	Colobrations and	2.435.77		1			141.70 73,648.08
Public service en-		- 001 05		5,961.87	75,858.44	1.4/1.41	75,040.00
FILIPLY SOLITION STATE - 202 Hol Et 200 99 1 MI / HI III	Public service en-			20.710.4	5	35,339,19	6,028.83
terprises 12.250.76 01.30.50	terprises	12.290.10	66.086,16	20,710,37	-	VA. 1889 From St. 1881 From 1881 Fro	1 000 01
Water-supply 25 40 241 78 25.956.85 14,554.95	Water-supply sys-	40.841.78	25,956.85	14,384.9	3	. 5,058.74	1,963.31
Electric light sys-	Electric light sys-		Ì		3	. 513.92	
tems 4.411.01 3,980.00 431.01 11.873.69 3.6	tems		= 3,980.00	431.0	1	. 11.875.89	3,800.00 40.26
Marketor houses 2.793.27 1.568.00 1.225.27 1.113.98	Markets	2.793.27	7 1.568.00	1,229.2		1,113.28	31.26
Meat shops 2.782.13 2.264.96 317.17	Meat shops	2.782.13	3 = 2.264.96		i		. 10.00
Animal pounds 1,435.20 12,989 27 2.757.89 13,152.80 1	Animal pounds	1,450.20		2.757.8	9 [1 10 00	
Cemeteries 15,747 16 12 363 24 389.55 317.34 50.00				317.3	4	90.00	

REGISTER OF PORTO RICO.

Insular loans to municipalities.

Municipality.	Date of approval of	ized and	unt author- purposes h granted.	Amount of loan received	Amount outstand- ing
	loan.	Payment of indebt- edness.	Public improve- ments.	June 30, 1911,	June 30, 1911.
Fajardo	July 2, 1904	\$2,800.00		\$2,800,00	
Comerío	July 14, 1901	. 2,500.00		2,500.00	
Aguas Buenas	July 18, 1904 Sept. 9, 1904	. 4,311.67 . 35,000.00		4,311.67 35,000,00	
Vega Baja	Oct. 15, 1904,	3,000.00		3.000.00	
ranco	Oct. 15, 1904	. 11,772,25		11,772.25	
Sabana Grande Bayamón	Nov. 23, 1904 Jan. 18, 1905	3,644.27 6.420.72		3,644.27 6,420.72	
San Sebastián	Jan. 18, 1905	8,669.42		8,669.42	
Mayagüez	Mar. 18, 1905	12.000.00		12,000.00	
San Juan Vieques	May 11, 1905 May 18, 1905	2,500.00		2,500.00	
vicques	May 18, 1905		\$3,000.00	3,000.00	
Total fiscal year 19	904-5	92,618.33	3,000.00	95,618.33	
Vega Alta	Aug. 12, 1905	1.000.00		1,000.00	
Adjuntas	Aug. 22. 1905	14.922.44	77.56	15,000.00	\$5,333.33
Rincón Aguadilla	Aug. 28. 1905 Sept. 14, 1905	2.643.49 5,943.79	6,056,21	2,643.49 12,000.00	
Naguabo	Sept. 14, 1905	108281	2,891.19	3.000.00	
San Juan	Sept. 14, 1905,		15.000.00	15.000.00	
Arroyo Coamo	Mar. 8, 1906 Apr. 2, 1906		4,200.00 2,000.00	4,200,00	
Lares	Apr. 2. 1906		12.000.00	2,000.00 12.000.00	
Lares Juana Díaz	A pr. 7, 1900	1,900.03	4.049.97	6,000.00	
Patillas Toa Baja	Apr. 7, 1906 May 18, 1906		2,000.00	2.000.00	
Aguada	June 16, 1906	114.16	1.500.00 3.885.84	1,500.00 4,000.00	750.00
Albonito	June 16, 1906	558.00	9,442.00	10.000.00	5,000.00
Total fiscal year 19	05-6	27.240,72	63,102.77	90.343.49	11,083,33
Maricao	June 25, 1906	1.088.00	5,912.00	7,000.00	
Morovis San Sebastián	June 25. 1906 June 26. 1906	4,500.00 5,500.00	4,5' 0.00	4,000 00	1,500.00
Ciales	July 14, 1906	5.000.00	4,5 0.00	10,000,00 5,000.00	• • • • • • • • • • • • • • • • • • • •
loa Alta	July 14, 1906,	3,000.00		3,000.00	
Añasco	July 14, 1906 July 30, 1906	10,000,00 5,000,00		10.000.00	
Barros	July 30, 1906	3.000.00		5.000,00 3.000,00	2,500.00
Aguadilla	Aug. 11, 1906,		2.000.00	2.000.00	
JuayanillaArroyo	Aug. 11, 1906		2.000,00	2.000.00	
tuayama	Aug. 11. 1906 Sept. 19. 1906 Sept. 19. 1906		2,000.00 16.000.00	2.000.00 16,000.00	10.000.00
San Lorenzo.	Sept. 19, 1906	6.000.00	10.000.00	6.000.00	1.000.00
oamo	50 Dt. 20, 1500,		25.000.00	25.000.00	12.500.00
labucoalanati	Sept. 25, 1906 Sept. 25, 1906	7.000.00	20.000.00	19.600.00	9,600.00
omerio	Oct. 16. 1906	7.000.00	750.00	7,000.00 750.00	• • • • • • • • • • • • • • • • • • • •
payamon	Oct. 27, 1906		20,000,00	15.084.38	5,084,38
Iumacaoabo Rojo	Dec. 28, 1906 Dec. 28, 1906	2,270,44	12.000.00	2.270.44 12.000 00	
aguas	Dec. 28, 1906 Mar. 9, 1907		60.000.00	60.000,00	8,533 31 36,000,00
an Juan	Apr. 9. 1907		52 000,00	52,000.00	22,285.71
aias lidra	Apr. 9, 1907		6.000.00	6.000,00	2.000,00
Jayaguez	Apr. 9, 1907 Apr. 16, 1907	1.400.00	2,750.00	2,750.00 1,400.00	916.67
Aayagüez Bayamón	May 8, 1907		10.000.00	10,000.00	5,992.48
aumas	May 21, 1907		4.000.00	4,000.00	1.333.34
ega Baja. Oa Alta.			5.000.00	5.000.00 1.000.00	2.919.87 131.00
as Marias	May 31, 1907		7.000.00	7,000.00	4,527.99
		23.000,00	12,000.00	35,000.00	14.000.00
Javagüez uana Diaz	June 10, 1907 June 10, 1907	25.000,00	10,000,00	10.000.00	3,600.86

Insular loans to municipalities—Continued.

Municipality.	Date of approval of loan.	Total amount autho ized and purposes for which granted. Payment. Public of Indebteners. Public ments.		Amount of loan received to June 30, 1910	Amount outstand- ing June 30, 1910
	July 26, 1907		\$6,000,00	\$6.000.00	4,200.00
Salinas	July 26, 1907		10.700.00	10.700.00	3,566,67
Aguadilla	July 26, 1907		7,000.00	7.000.00	5,127,75
Santa Isabel	July 26, 1907		5,000.00	5,000.00	68,89
Santa Isabel	Aug. 12, 1907		10,000.00	10.000,00	6.250.00
San Germán	Aug. 12, 1907		12.000.00	12.000.00	7.200.00
Aguas Buenas Cabo Rojo	Sept. 3, 1907 Sept. 6, 1907		500.00 2.000.00	500.00	
Naguabo	Sept. 6, 1907		2.000.00	2.000.00 $2.000.00$	
Ponce	Sept. 6, 1907	\$14.000.00	50.000.00	64.000.00	38.100,00
Caguas	Nov. 5, 1907		4,000,00	4.000.00	90.100,00
Fajardo	Nov. 5, 1907		6,000.00		
Çoşmo	Dec. 4, 1907		5.000.00	5,000,00	3,125.00
Loiza	Dec. 4, 1907		16.000.00	16.000.00	11,200.00
San Juan Cayey	Dec. 7, 1907 Dec. 21, 1907		22,000.00 ± 35,516.13	16.000.00	00.110.01
Aibonito	Dec. 21, 1907 Dec. 30, 1907		3,000.00	35,516,13 3,000.00	28,412,91 2,100,00
Arecibo	Feb. 7, 1908		10.000,00	9.983,92	6,983.92
Gurabo	Feb. 7, 1908		308,22	308.22	0,505.52
Vieques	Feb. 20, 1908		1.250.00	1.250.00	
Hatillo	Feb. 28, 1908		1,000.00	1,000.00	250.00
Hatillo	Mar. 24, 1908		1,000.00	1,000.00	250.00
Arecibo	Mar. 24, 1908 Mar. 24, 1908		1.500.00 ± 1.500.00	1.500.00	
Quebradillas			250.00	1.500,00 250,00	62.50
Quebradillas	Mar, 24, 1908		250.00	250.00	62.50
Patillas	Mar. 24, 1908		1,000.00	1.000.00	400.00
Caguas	Mar. 24, 1908 Mar. 24, 1908 Mar. 24, 1908 Mar. 28, 1908 Apr. 20, 1908	750.00		750.00	
Camuy	Apr. 20, 1908		750.00	750.00	200.00
CamuyRío Piedras	Apr. 20, 1908 Apr. 24, 1908		750 00 500.00	750.00 500.00	200.00
Toa Alta	May 28, 1908		1.000 00	1,000.00	700.00
San Sebastián	June 12, 1908		3,000.00	3,000.00	1.551.91
Moca	June 27, 1908		1,400.00	1.400.00	
Total fiscal year 19	907-8	14.750.00	222,174.35	224,908.27	120,312.05
Utuado	Oct. 20, 1908		27.300.00	27,300.00	23.300.00
San Juan	Dec. 7. 1908		25.000.00	25,000,00	20,000.00
Total fiscal year 19	008-9		52,300.00	52,300.00	43,300.00
Juncos	Aug. 26, 1909		3,000 00	3.000.00	
San German			4,500.00	4.500.00	3,294.77
Total fiscal year 19	009-10		7,500,00	7.500.00	3.291.77
MayagüezSan Juan	Nov. 11, 1910 Jan. 30, 1911		9,500.00 5.000.00	5,000,00	5.000.00
Total fiscal year 19	010-11		14,500.00	5.000.00	5.000,00
Total fiscal years 19		210.867.49	642,489.12	826,524,91	327,415.76

REGISTER OF PORTO RICO.

Insular loans to school boards

Municipality.		te of oval of	ized and	unt author- purposes granted.	Amount of loan received	Amount
loan. Adjuntas July 2, 1901		Payment of indebt- edness.	Public improve-ments.	to June 30, 1911.	June 30, 1911.	
Adjuntas	July 2.	1904	\$980.00		\$980,00	
Aguada	July 2.	1904	108 00		408.00	
Aguadilla	July 2,	1904	750.00		750.00	
Añasco	July 2, July 2,	1901 1901	355.00		355.00	
Arecibo	July 2	1904	806.00 1.411.00		806.00 1,411.00	
BarrosBayamóu	July 2.	1904	348.00		348.00	
Bayamóu	July 2.	1901	672.00		672.00	
Camuy	July 2, July 2.	1904	1.000.00		1,000.00	
Cayey Ciales	July 2.	1904 1904	734.00 323,33		734.00 323.33	
Ciales Comerío Fajardo	July 2,	1904	925.00		925.00	
Fajardo	July 2.	1001	182.00		182.00	
Lajas	July 2.	13014	550.00		550.00	
Las Marías	July 2. July 2.	1904	675.00		675.00	
Maricao Mayagüez	July 2.	1901	$\frac{216.00}{3,680.00}$		216.00	
	July 2.	1904	600.00		3,680.00 600.00	
Naguabo	July 2.	1904	492.00		492.00	
ratmas	July 2,	1904	391.00		394.00	
Ponce	July 2, July 2,	1904	1,000.00		1,000.00	
Sabana Grande San Lorenzo	July 2.	1904 1904	425.00 800.00	• • • • • • • • • • • • •	425.00	
Utuado	July 9	1904.	862.00		800.00 862.00	
vega Baja	July 2,	1904	208.00		208.00	
Manati	Sept. 24,	1904	700,00		700,00	
Total fiscal year 190	04-5		19,496.33		19.496.33	
Aguada. Arecibo Arecibo Aguadilla Camuy Hatillo Añasco -sabana Grande -san Germán Manatí Lares Río Piedras Coamo Naguabo Total fiscal year 19	Aug. 28, Sept. 14, Sept. 14, Sept. 14, Oct. 3, Oct. 3, Oct. 9, Mar. 26, Apr. 2, Apr. 9, May 18,	1906 1906 1906 1906 1906	196.00 1.500.00 2.000.00 1,200.00	1.000.00 900.00 3.000.00 3.000.00 2.000.00 1.200.00 5.000.00 6.000.00 1.500.00 27,100.00	1.000.00 1.096.00 1.500.00 1.500.00 3.000.00 3.000.00 1.200.00 1.200.00 1.200.00 5.000.00 6.000.00 1.000.00 1.500.00 1.500.00	1.312,f 3,000,0 750.6 5,489.1
Patillas	Aug. 11, Aug. 11, Aug. 17, Aug. 25.	1906 1906 1906	750,00	4,000,00 1,000,00 1,000,00 8,000,00	4.000.00 1.000.00 750.00 1,000.00 8.000.00	833.3 500.0 3,000.0
sabela		1906 1906	300.00	6,000.00	6,000.00	
	Oct. 24.	1906		5,000.00	300.00 5,000.00	2.000.0
atjas	Feb. 25.	1907		6,000.00	5 220 40 1	2,563.7
				1,200.00	1,200.00	800.0
once	Apr. 9.	1907		8,000.00 50,000.00	8,300.00 50,000.00	4,000.0
an Juan anta Isabel	May 9	1907		48,000.00	48,000.00	10,500.0 24,000.0
santa Isabel	June 17,	1907		5,000.00	5,000.00	24,000.0
Total fiscal year 196			1,050.00	143,200,00	143,480,40	48,197.0

REGISTER OF PORTO RICO.

Insular loans to school boards-Continued.

Date of	Total amount authorized and purposes for which granted.		Amount of loan received	Amount outstand.
loan.	Payment of indebt-edness.	Public improvements.	to June	June 30, 1910.
Aug. 23, 1907 Aug. 23, 1907 Mar. 7, 1908		\$12,000,00 200,00 1,400,00 3,500,00 12,200,00	\$12,000,00 200.00 1,400.00 2,000.00 12,200.00	950.00 8,714.28
07-8		29,300.00	27,800.00	18,064.28
July 13, 1908. July 13, 1908. July 13, 1908. July 18, 1908. July 18, 1908. Nov. 20, 1908. Apr. 1, 1909.		1,000.00 6,000.00 6,000.00 8,000.00 30,000.00 1,000.00 13,000.00 65,000.00	1,000.00 6,000.00 8,000.00 30.000.00 953.10 13.000.00 58,953.10	1,000.00 4,800.00 5,600.00 24,000.00 553.10 10,400.00 46,353.10
	}	2,000.00	2.000.00	1,866.62 1,866.62
	approval of loan. July 2, 1907 Aug. 23, 1907 Aug. 23, 1907 Mar. 7, 1908 June 27, 1908 July 13, 1908 July 13, 1908 July 13, 1908 July 13, 1908 July 13, 1908 July 13, 1908 July 18, 1908 Nov. 20, 1908 Apr. 1, 1909 July 19, 1910	Date of approval of loan. for which payment of indebt-	Date of approval of loan. Payment of indebtedness. Public of indebtedness. Payment of indebtedness. Public of in	Date of approval of loan. Payment of indebtedness. Payment of indebtedness. Public improvedness. Public

Note.-No loans approved during fiscal year 1909-10.

Total value imports into and exports from Porto Rico, 1836 to 1911

Year	Imports	Exports	Year	Imports	Exports	Year	Imports	Exports
1836	\$4,005,944	\$4,099,575	1863	\$10,513,766	\$5,557,195	1887	\$8.946.356	\$8.931.691
1837	4,209,489	4,861,636	1864	10,379,824	4,965,382	1888	12,031,499	10.032.821
1838	4,302,149	5,254,945	1865	8,529,740	6,059,820	1889	11,517,122	8,989,996
1841	6,062,362	5,962,445	1866	8,871,327	5,592,247	1890	15,179,338	8,918,001
1843	4,342,540	5,054,905	1867	8,551,892	6,023,502	1891	14,030,586	8,224,625
1844	5,257,228	6,204,764	1868	8,754,690	5,730,239	1892	14,339,104	12,748,859
1845	6,094,887	6,557,699		9,066,902	6,535,352	1893	12,642,667	12,222,913
1846	5,550,590	5,369,020		13,479,951	8,104,619	1894	13,037,961	11,401,142
1847	5.763,945	5,865,818	1871	15,484,808	9,047,426	1895	10,366,052	9,387,159
1848	4,469,751	5,595,137		15,435,323	8,008,125	1896	12,183,790	12,222,935
1849	4,981,584	5,402,371		13,564,815	8,500,553	1897	10,725,563	11,155,962
1850	5,222,029	5,877,319		13,249,355	7,111,636	1899	9,805,919	10,156,541
$1851 \dots 1851$	6,073,870	5,761,975		13,364,131	7,693,281	1900	9,989,505	6,612,499
1852	6,298,396	4,652,340	1876	13,324,865	7,085,563	1901	8,918,136	8,583,967
1853	5,335,910	5,299,327	1877	13,119,847	10,460,959	1902	13,209,610	12,433,956
1854	5,536,681	5,062,017	1878	13,133,982	13,129,927	1903	12,449,286	15,089,079
1855	5,785,891	4,971,715	1879	14,426,905	10,647,193	1904	13,169,029	16,265,903
1856	6,571,160	5,371,804	1880	12,753,189	870,677,	1905	16,536,259	18,709,565
1857	7,999,005	4,429,350	1881	10,884,749	11,736,276	1906	21,827,629	23,257,530
1858	7,456,364	5,357,155	1882	13,299,375	10,397,113	1907	29,267,172	26,996,300
1859	6,764,673	4,289,494	1883	11,977,275	10,258,669	1908	25,825,665	30,644,490
1860	7,545,957	5,454,057	1884	11,340,494	10,033,577	1909	26,544,326	30,301,225
1861	8,676,811	6,063,445	1885	10,072,919	12,048,575	1910	30,634,855	37,960,219
1862	9,199,108	5,793,962	1886	9,089,570	8,416,637	1911	38,786,997	39,918,367

Nore-Data for the years 1836 to 1900, inclusive, from the report of the Porto Rico Chamber of Commerce; subsequent data from the reports of the United States Customs Service.

Quantities and values of principal articles exported from Porto Rico to the United States and other countries, 1871-1897 and 1901-1911

Year.	Sug	gar.	Mol	asses.	Coff	ee.
1041.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	Dollars.	Gallons.	Dollars.	Pounds,	Dollars.
871	95,039	6,198,201	7 210 428	686 705	20,822.299 18,355,133	1,219,38
879	84.935	5,343,577	5,571,956 4,897,200 5,126,703 5,602,668	530,662 466,400 488,257	18,355,133	1.101,30
8/3	87,639	5,715.608	4.897,200	466,400	25.810,533	1,550,43
874	71,755	4,679,703	5,126.703	488,257	17,769,195	1,066,15
875	74,609	4,865,808	5,602,668	533,587	26,162,690	1.569,76
876	69,923	1,429,776	1 6,532,890	622,180	20.826,390	1.249,58
877	56,652	5.542.012	3,676,706	665,309	15.843,887	3.010.3
878	76,537	7,487.278	4,367,592 4,306,420	754,402 431,395 310,810	17.051.486	3,325,0
879	71,249	4,265,553	4.306,120	434,395	20.527.901 21.832.862	4.765,66
880	71,249 46,260 57.367	2,737,703	3,343,060	310.810	21.832.862	3.368.0
881	97,307	3,385.839	3,812.018	379,303	47.182.029	6.404,8
882	83,566	4,875,972	4,556,858	612.683	29.435.446	3,403.3 4,152.6
883 884	79.738 98,974	4,503,029	6,172,873 6,687,300	643,567	37.109.800 25.756.611	$\frac{4,152.6}{2,864.8}$
885	88,959	5,555,561 $4.959,131$	6.120.110	692,984 630,784 405,946 567,574	47,105,476	5,203.4
886	69 777	3,389,633	6,129,149 4,137,265 5,822,362 4,220,514	105 016	36,436,769	5,205,4 3,837,3
887	63,777 80,792	4,266,047	5 899 269	567.571	97 981 911	$\frac{9.637.5}{2.851.7}$
888	61,987	3,368,880	4 220 514	428,463	27.281.241 50.489,967	5,437.3
889	63,610	3,358,801	4.140,723	403,645	37.719.768	3.916.6
890	58.192	3,149,430	3.316.312	331,352	43,300.983	4,643,70
891	48.094	2,600,780	2.473,942	246,983	41.130,154	4,407,2
892	48.094 67,303	3,202,311	3.826.646	614.855	46.704.544	7.496,4
893	43,088	2,149,221	2.037,869	260.312	48,541,873	8,475.3
894	48,409	2,165,398	1,447,619	166,996	49,803,672	7.853.0
895	59,941	2.401.872	3.195,092	332,229	39,683,160	5,610,0
896	55,775	2,401.617	3.923,099	328,966	57.961.291	8.915.9
897	57.649	2.407.201	2.305,826	242,354 595,902	51.097,824 12.457.210	7.340.90
901	68,909	4.715.611	2,848,344	595,902	12,457,210	1.678.7
902 903	91,912	5.890.002	3.080,132	579.097	26,906,399	3.195.6
903	. 113,108	7,470.122	4.278.479	664,570	35.207,139	3.970.5
904	129.647	8,690,814	3,500.030	621,326	34.329.972	3,903,2
905	135,663 205,277	11,925,804	4.612,062	576.125	16.849,739	2.141.00
906	205.277	14.181,667	6.015.531	553.850	28,290,322	3,481.10
907	204,679	14.770.682	7.923,110	597.128	38,756,750	4,693.00
908	234,607	18,690.504	4,804.458 9,108,263	267,181 491,915	35,256,489 28,489,509	4,304.60
909	244.257	18.432,446		491,915	20.469,909	3,715,7
		00 5 15 000	0.000,515	500.101	45 900 509	E cen e
910 911	284,522 322,919	23,545,922 24,479,346	9.682.517 8,868,860	599.124 554.228	45.209.792 33,937.021	5,669,60 $4,992,7$
911	322,919	24,479,846	9.682.517 8,868,860	599.124 554.228	45.209.792 33,937.021	5,669,60 4,992,75
911 Year.		24,479,846	9.682.517 8,868,860 Cig	599.124 554.228 ars.	45.209.792 33.937.021 Cigare	4,992,77
911	322,919	24,479,846	9.682.517 8,868,860	599.124 554.228	45.209.792 33,937.021	4,992,77
Year.	Tobacco, unm Quantity. Pounds.	24,479,346 anufactured. Value. Dottars.	9.882.517 8,868,860 Cig Number.	599.124 554.228 ars. Value.	45.209.792 33.937.021 Cigare Number.	4.992,77 ettes. Value. Dollars.
Year	Tobacco, unm Quantity. Pounds. 5,381,081	24,479,846 anufactured. Value. Dottars. 215,243	9.682.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. <i>Dollars</i> .	45.209.792 33.937.021 Cigare Number.	4.992,7
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421	24,479,346 anufactured. Value. Dollars. 215,243 260,484	9.682.517 8,868,860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45,209,792 33,937.021 Cigare Number.	4.992,7. ettes. Value. Dollars.
Year. 	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6.318.421 4 909.086	24.479,846 anufactured. Value. Dollars. 215.243 260.484 199.963	9.682.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Clgare Number. Thousands.	4.992,7° ettes. Value. Dollars.
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6.318.421 4 909.086	24,479,346 anufactured. Value. Dollars. 215,213 260,484 199,963 172,997	9.882.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. <i>Dollars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4.992,7 ettes. Value. Dollars.
Year. 	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6.318.421 4 909.086	24,479,846 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121	9.682.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 38.937.021 Cigare Number. Thousands.	4.992,7 ettes. Value. Dollars.
Year. 871 873 873 874 875	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.086 4,236.475 6,325.781 6,499.595	24.479,346 anufactured. Value. Dollars. 215.243 260.484 199.963 172.997 268.121 329.199	9.682.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4.992,7 ettes. Value. Dollars.
911 Year. 372 373 374 375 376	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,999,086 4,236,475 6,325,781 6,490,595 5,997,988	24,479,846 anufactured. Value. Dollars. 215,213 260,484 199,963 172,997 268,121 332,122 511,1220	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. <i>Dottars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7° ettes. Value. Dollars.
Year. 37137287337437537637637737883788837888378883788837888378883788883788883788888888	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,990,986 4,236,475 6,325,781 6,490,595 5,997,988 5,237,861	24,479,846 anufactured. Value. Doltars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554	9.682.517 8,868,860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tetes. Value. Dollars.
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.086 4,236.475 6,325.781 6,490.595 5,997.988 5,237.881 3,961.298	24,479,346 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 ettes. Value. Dollars.
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,999,086 4,236,175 6,490,595 5,997,988 5,237,861 3,961,298 5,540,235	24,479,346 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633* 754,115	9.682.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 ettes. Value. Dollars.
Year. 37137237337437637637737637837837837938038803881	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6.318.421 4.999.086 4.236.475 6.325,781 6.499.595 5,997.988 5,237.861 3,961.298 5,540.235 7,570.459	24,479,346 anufactured. Value. Dottars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633 754,115 954,352	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tittes. Value. Dollars
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6.318.421 4.999.086 4.236.475 6.325,781 6.499.595 5,997.988 5,237.861 3,961.298 5,540.235 7,570.459	24,479,346 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,632 754,115 954,352 683,468	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. <i>Dottars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7'tttes. Value. Dollars
Year. 871 872 873 874 876 8776 8776 8777 8780 880 881 882	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.986 4,236.475 6,325,781 6,499,595 5,997.988 5,237.861 3,961.298 5,540,235 7,570,459 5,077.174 3,821.507	24,479,346 anufactured. Value. Doltars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,6339 754,115 954,352 683,468 497,891	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. <i>Dottars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tites. Value. Dollars.
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,999,086 4,236,475 6,325,781 6,490,595 5,997,988 5,237,861 3,961,298 5,540,235 7,570,459 5,077,174 3,821,507 2,721,584	24,479,846 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,6339 754,115 954,352 683,468 497,891 352,443	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. <i>Dottars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tttes. Value. Dollars
Year. \$71. \$72. \$73. \$74. \$75. \$76. \$779. \$80. \$81. \$82. \$83. \$84. \$84.	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,999,986 4,236,175 6,492,575 5,997,988 5,237,861 3,961,298 5,540,235 7,570,459 5,077,174 3,821,507 2,721,584 7,598,680	24,479,346 anufactured. Value. Doltars. 215,243 260,481 199,963 172,997 268,121 332,122 511,220 878,554 545,633 754,115 954,352 683,468 497,891 352,443 977,271	9.882.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Clgare Number. Thousands.	4,992,7 tites. Value. Dollars
Year.	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.086 4,236.475 6,325,781 6,499.595 5,997.988 5,237.861 3,961,298 5,540,235 7,570,459 5,077.174 3,821,507 2,721,584 7,598,680 4,464,082	24,479,346 anufactured. Value. Dottars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633 754,115 954,352 683,468 497,891 352,443 977,271 547,370	9.882.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tites. Value. Dollars
Year. 871. 872. 873. 874. 875. 876. 877. 877. 880. 881. 882. 884. 885. 886. 887.	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.086 4,236.475 6,325,781 6,499.595 5,997.988 5,237.861 3,961,298 5,540,235 7,570,459 5,077.174 3,821,507 2,721,584 7,598,680 4,464,082	24,479,346 anufactured. Value. Doltars. 215,243 260,481 199,963 172,997 268,121 332,122 511,220 878,554 545,633 754,115 954,352 683,468 497,891 352,443 977,271	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. <i>Dottars</i> .	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tttes. Value. Dollars
Year	322,919 Tobacco, unm Quantity. Pounds. 5,381,081 6,318,421 4,999,086 4,236,475 6,325,781 6,490,595 5,997,988 5,540,235 7,570,459 5,077,174 3,821,507 2,721,584 7,598,680 4,464,082 7,527,154 3,301,239	24,479,346 anufactured. Value. Doltars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633* 754,115 954,352 683,468 497,891 352,443 977,271 547,370 916,955 413,925	9.882.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tites. Value. Dollars
Year. \$71 \$72 \$73 \$74 \$75 \$76 \$779 \$81 \$81 \$82 \$83 \$84 \$85 \$86 \$87 \$888 \$89 \$990	322.919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.986 4,236.475 6,325.781 6,490,595 5,997.388 5,237.861 3,961.298 5,540.235 7,570.459 5,077.174 3,821,507 2,721,584 7,598.680 4,464.082 7,527.154 3,301,239 7,630.105 3,930,817	24,479,346 anufactured. Value. Doltars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633% 754,115 954,352 683,468 497,891 352,443 977,271 547,370 916,955 413,925 929,496 490,812	9.882.517 8.868.860 Cig Number.	599.124 554.228 ars. Value. Dottars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7' tttes. Value. Dollars
Year. 	322.919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.986 4,236.475 6,325.781 6,490,595 5,997.388 5,237.861 3,961.298 5,540.235 7,570.459 5,077.174 3,821,507 2,721,584 7,598.680 4,464.082 7,527.154 3,301,239 7,630.105 3,930,817	24,479,346 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633* 754,115 954,352 683,468 497,891 547,370 916,955 443,925 929,496	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tites. Value. Dollars.
Year. \$71 \$72 \$73 \$74 \$75 \$76 \$776 \$779 \$880 \$881 \$882 \$884 \$886 \$899 \$990 \$991	322.919 Tobacco, unm Quantity. Pounds. 5.381.081 6.318.421 4.999.086 4.236.475 6.325.751 6.490.595 5.997.088 5.237.861 3.961.298 5.540.235 7.570.459 5.077.174 3.821.507 2.721.581 7.598.680 4.464.082 7.527.154 3.301.239 7.630.105 3.930,817 5.213.867 4.148.713	24,479,346 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,633 754,115 954,352 683,468 497,891 352,443 977,271 547,370 916,955 443,925 929,496 490,812 650,476 605,363	9.882.517 8.868.860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7 tttes. Value. Dollars.
Year. 	322,919 Tobacco, unm Quantity. Pounds. 5,381.081 6,318.421 4,999.086 4,236.475 6,325,781 6,499,595 5,997.988 5,237.861 3,961,298 5,540,235 7,570,459 5,077.174 3,821,507 2,721,581 7,598.680 4,464.082 7,527.154 3,301,239 7,630.105 3,930,817 5,213,867	24,479,846 anufactured. Value. Dollars. 215,243 260,484 199,963 172,997 268,121 332,122 511,220 878,554 545,6339 754,115 954,352 683,468 497,891 352,443 977,271 547,370 916,955 413,925 929,496 490,812 650,476	9.882.517 8,868,860 Cig Number. Thousands	599.124 554.228 ars. Value. Dollars.	45.209.792 33.937.021 Cigare Number. Thousands.	4,992,7' sites. Value. Dollars.

Quantities and values of principal articles exported from Porto Rico to the United States and other countries, 1871-1897 and 1901-1911—Continued

Year.	Tobacco, unm	anufactured.	Ciga	ars.	Cigare	ttes.
rear.	Quantity.	Value.	Number.	Value.	Number.	Value.
1895	Pounds. 3,614,002	Dollars. 414.869	Thous and s.	Dollars.	Thousands.	Dollars.
1896	2.188.987	271.969		· · · · · · · · · · · · · · · · · · ·		
1897	6.050,245	717.308				
1901	4,990,237	375.527	11.831	306.115	1.243	2,749
1902		212.768	70.678	1.549.235	427	29,513
1903	2.251.627	194,857	67,964	1,753,795	282	9,412
1904	3,104,754	286.106	59.671	1,460,496	205	5,929
1905	2.513,271	437.882	87.961	2.152.051	486	9.360
1906,	1,443,970	480.607	113,579	3.074,226	187	11.707
1907	4.344,659	4.232.058	129,211	4,241,410	9,106	21.998
1908	8,402,286	1.996,055	106,273	3,414,140	12.328	29.352
1909	4.539.320	1.250.237	142,088	4.383,893	11.574	29,998
1910		1.258.317	149.746	4.480.030	11,955	21,867
1911	4.450,012	1.554.783	174,484	5,855,223	11,584	33,631

(Data 1871-1897 from Report of the Porto Rico Chamber of Commerce; subsequent data from Reports of United States Customs Service.)

World's commerce with Porto Rico and share of the United States therein, 1887 to 1911

Year.	World's com- merce with Por- to Rico	United States commerce with Porto Rico.	Share of United States.
	Dollars.	Dollars.	Per cent.
1887		5,932,347	35
1888	24,292,070	5.371.336	25
1889		5,332,878	27
1890	23,255,932	5,102,642	22
891	21,476,278	4.790.583	22
1892	26,661,760	6.104.010	28
893	23,995,285	5.099.175	21
.894	23,583,735	4.613.537	20
895	19.061.849	4.063,289	21
896		4,196,803	18
897	21.881.526	4.169.912	19
898	21.001.020	3,920,302	1
.899	19,962,457	7,411,926	37
900		10,302,691	62
901		12,606,505	71
1902	25,643,566	19.261.449	75
903		23,297,040	79
904	29,434,932	22,932,886	78
1905	35,245,824	29,607,215	84
906		38.367.342	85
1907		47,756,418	85
908	56,470,155	48.568.657	86
909		50.012.857	88
910	68,595,326	59,193,551	86
911	78,705,364	69,437,367	88

Statement by countries of value of merchandise shipped from Porto Rico to the United States and foreign countries for the past five years ending June 30, 1911

Countries	1907	1908	1909	1910	1911
United States.	\$22,070,133	\$25,891,281	\$26,394,312	\$32,095,645	\$34,765,409
Austria Hungary	527,651	626,578	445,783	833.604	369,302
Belgium	17,250	18,499	10,934	12.662	1.380
Denmark	8.272	3,921	7,996	12.244	7.809
France	975,462	677.414	547.337	584,193	365,929
Germany	128,528	553.328	105.775	259.508	66.851
Gibraltar	28,623	20,703	23,639	8.736	8.528
Italy	283.123	320.113	401.826	377,517	319,653
Netherlands	33,857	79,465	36.154	94,990	16.480
Norway	55,001	10,100	586		1,336
Portugal			900		1,550
Russia				1.200	1,200
pain	863,500	843.360	500.051		
Sweden	13,622			1,058,197	887,037
United Kingdom	32,620	18,883		12.827	5,470
		17,619	41.485	13,195	14,214
Canada	43,119			5.437	40
Panama			249		1,225
Mexico	13				
British	1,564	2.334	460	396	4,395
Cuba	1.910.387	1,484,304	1,432,909		2,989.704
West Danish	11.678	8,591	20,504		15,875
Indias (Duten	3,109	17,423	7,685	3,939	6,616
French		88		569	231
Haiti	336	583	342	288	717
Santo Domingo	41,916	48.049	96,900	88.347	60.254
Argentina		70	80	.	1.889
Bolivia		520			
		500	3.209	347	1.284
Ecuador		28			7,20
Jruguay	200			747	
Venezuela	80	745	734		300
Canary Islands		4,141			100
French Africa	1,242	3,900		1.284	4.855
Spanish Africa					284
			· · · · · · · · · · · · · · ·		201
Moroeco				1.888	

Statement by countries of value of merchandise brought into Porto Rico from the United States and foreign countries for the past five years ending June 30, 1911

Countries	1907	1908	1909	1910	1911
United States	\$ 25,686.285	\$22,677,376	\$23,618,545	\$27.097.654	\$ 34,671.958
Austria Hungary	13,993	9,573	8,826	7.030	15.000
Belgium	343,487	91,551	55,406	97,340	99,949
Denmark	49.441	58,948	48.388	67.127	108,737
France	556,377	351.719	336,855	345.469	435,024
Germany	251,779	310,229	250,981	493,856	586,575
Italy	69,619	79,028	72,106	76,611	80.847
Netherlands	90,751	130,250	122,842	164.314	252,596
Norway			2.097	414	
Portugal	511	2,646	1.055	993	1.896
Spain	753,274	694,941	585,792	708,573	791,293
Turkey			558		
Sweden					2,127
Switzerland	206	2.668	3,725	373	1.012
United Kingdom	317,605	335,018	332.087	366,241	423,809
Canada	634,659	517.015	536,260	555,729	609,381
Newfoundland	21,628	41,099	170,107	77,074	89,025
Panama		265	803	85	588
Mexico	36,858	48,547	26,674	13,226	2,924
Miquelon, Langley, etc			l	5.183	
(British		307	8,343	1,954	
Cub a	63,734	26,495	42,360	56,511	43.815
Danich	906	3,260	3,754	12.128	1,753
West Dutch	4,308	6,553	8,673	38.504	12.523
Indies French	58				2,827
Haiti	415	1.038			
Santo Domingo	28,379	29,523	13,156	41,396	52,508
Totals	28,924,273	25,418,049	26,249,393	30,227,785	38,286,162

Statement by countries of value of merchandise brought into Porto Rico from the United States and foreign countries for the past five years ending June 30, 1911—Continued

Countries	1907	1908	1909	1910	1911
Foward	\$	\$	\$	\$	\$
Argentine	58,981	54,729	19,263	43,005	129,155
Brazil Colombia		364	3,656	765 3,248	6,579
Guiana-British Peru			795	172	45
Uruguay	102,567	183,617		199,341	187,212
Venezuela East Indies-British India.:	5,446 152,066	9.222 141.843	8,191 115,340	7.925 109 . 406	11,716 $127,399$
Japan			56	109,400	127.599
Canary Islands	14,839	17.841	21.018	43,066	38,707
Totals	29,267,172	25,825,665	26,544.326	30,634,855	38,786,997

Domestic and foreign merchandise shipped from Porto Rico to the United States and foreign countries during the fiscal year ending June 30, 1911

Articles	dise ship	merchan- ped to the I States	dise ext	merchan- corted to countries
	Quantity	Value	Quantity	Value
Cocoa Lb Coffee Lb Cotton Sea Island Lb	248,941 139,109	\$35.726 41.900	31,310 33,688.080 32,030	\$4,843 4,957,053 10.000
Fruits and nuts:				
Oranges Box Pineapples Crate Grapefruit Box All other green, ripe or dried Prepared or preserved:	349.431 335.434 96,189	703.946 640,713 309.698 5,618	11 207	23 578 101
Pineapples Box All other Box Cocoanuts M	57,838 1,156 8,661	149.744 5,384 253,091	2 283	20 5.078
Hides and skinsLb.	623,357	115,239	255,809	40,846
Honey Leather. sole Lb.	51.234	17,904 16,417	35,844	$\frac{2,810}{9.285}$
Seeds:				•
Cotton Lb. Annatto Lb.	213,767	7,401	455,319 170,546	$6,800 \\ 7,661$
Spirits distilled:				
Alcohol Gallon Rum Gallon Straws hats Ton	778 454 322,917	255 786 109,404 24,479,159	3,548 96 2	1,099 173 7,560 187
MolassesGallon	8,868,860	554,228		
Tobacco and manufactures of: Unmanufactured—				
Leaf Lb. Scrap Lb. Manufactures of—	3,495,544 866,281	1,443,215 103,639	13,957 74,230	-1,686 [6,243
Cigars M Cigarettes M	174,246 11,544	5,349,626 33,521	238 40	5,597 110
Tallow Lb. All other domestic articles	39,017	2,238 385,155	230,050	13,087 44,305
Total exports of domestic merchan- dise		34,764,007		5,125,145
dise		1,402		27,813
Total exports of domestic and for- eign merchandise		34,765,409		5,152,958

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States	30, 19
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Merchandise	

	June 30, 1911.	.1161				•
ARTICLES.	Domestic m from Unit	Domestic merchandise from United States.	Foreign m from the U	Foreign merchandise from the United States.	Merchandis from foreig	Merchandise imported, from foreign countries.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Agricultural implements,		\$29,975				\$3,215
Animals		63,087				1,676
Breadstuffs:	•					
Bread and biscuitsLbs.	4,273,641	282,746				17.384
Corn mealBbls.	45,455	135,138				Toofit
OatsBushs.	277,761	122,479			3,771	1.434
Wheat flourBbls.	347,680	1,779,248	:		90	158
Ricebs.	126,901,195	3,866,986			130,144	4 515
All other		73,252		\$5,176		39,982
CandlesLbs.	1,468,987	119,149	:		20,704	2,359
Cars, carriages and parts of		1,354,752		:		
CementBbls.	213,460	280,059	237	840	1,537	. 2,615
Chemicals, drugs, dyes, and medicines		471,247		10,748		119,479
Coal and coke Tons.	100,897	313,491			4,265	14,542
Cocoa and chocolate, prepared Lbs.		24,584			300,059	59,846
Cotton, manufactures of:						
Cloths Yds.	53,688,380	2,919,391	5,067	1,345	348,175	64,728
All other manufactures of		2,213,302		214,596		77,461
Earthen, stone and chinaware		135,246		22,629		24,647
Explosives		46,009	:	1,409		157
Fertilizer Tons.	10,406	459,981		1,070	13,328	582,489

							1	KE(Z15	тъ	к	OF.	PU	JK.	ro	KI	CO	•							209
:	164,805	57,003		630,270	75,644	37,574	27,320	1,043		323,276	54,853				3,996		64		232,616	,	899,668	252,297	32,635	8,661	82
:	:		eco describe (CT).	10,819,214											17,377		909			e collection of	272,295	2,071,327	495,377		89
:	167,985	34,747	mento y serie ?	54,976	3,330	12,099	2,623	1,152		10,531	541							:	395	:		3,675		223	=======================================
				754,688																		15,572			10
70,462	18,113	69,307		364,543	52,996	155,320	140,481	242,837	186,825	4,977,146	1,266,132			18,728	491,037	1,359,110	251,147	854,916	206,637		153,124	78,712	150,726	55,564	1,899
1,621,927				6,078,761										135,985	3,663,620	12,430,220	2,189,732	9,041,222			870,522	470,463	2,078,837		2,115
Fibers, vegetable and textile grasses:		All other	Fish:	Dried, smoked, or curedLbs.	All other	Fruits and nuts	Glass and glassware	India rubber, manufactures of	nstruments and apparatus, scientific	Iron and steel, manufactures of	Leather and manufactures of	Meat and dairy products:	Meat products—	BaconLbs.	Hams and shouldersLbs.	Pork, pickledLbs.	Lard	Lard compoundsLbs.	All other meat products	ı	ButterLbs.	CheeseLbs.	Condensed milkLbs.	Musical instruments and parts of	Oils: AnimalGals.

Merchandise brought into Porto Rico from ti	the United States and foreign countries during the fiscal year ending June 30, 1911.—Continued	nited States and for 30, 1911.—Continued	reign countri 1	es during th	e fiscal yea	r ending
ARTICLES.	Domestic n from Uni	Domestic merchandise from United States.	Foreign m from the U	Foreign merchandise from the United States.	Merchandi from foreig	Merchandise imported from foreign countries.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Oils—Continued. Mineral	8 036 960	11				
Vegetable Paints pigments and colors. Paber, manufactures of	• :	#174,970 118,272 156,905		\$4,180 20		\$114,034 28,390
Perfumeries, cosmetics, and toilet preparations Seeds Silk, manufactures of		556,229 72,324 4,295		1,238 7,761 3,175		106,044 48,127 1,520
Soap:		000000	: : : : : :	9,526		9,285
Toilet or rancyAll other	11,207,790	31,164 $502,610$		210		4,872
Spirits, wines and malt liquors: Malt liquors—						.#
In bottlesDoz. qts. In other coveringsGal.	173,367	221,787	61	242	11,433	25,782
Spirits distilled—				1	670	166
Whisky Proof gals.	12,179	31,743	:	:	229	1,411
All otherProof gals.	10	28	4,774	18,247	4,170	15,185

	193,008	69,534	2,938	1,109	124,186	91,405
Champagne			4	99	1,284	24,655
SugarLbs.	11,853,322	800,038	:9,144	1,540	334	∞
Straw and palm leaf, manufactures of		70,621				
Tobacco and manufactures of:			·			
UnmanufacturedLbs.	2,024,380	349,598	10,665	12,412	815	367
All other manufactures of		15,825				329
Toys		67,632		7,753		5,639
Vegetables:						
Beans and dried peasBushs.	185,630	546,129	20,162	48,885	14,424	26,720
Onions Bushs.	37,133	30,592	108	199	42,510	37,212
PotatoesBushs.	188,197	150,608			19,184	18,870
All other canned		32,482		779		16,550
All others (including pickles and sauces)		16,121		160,090		106,262
Wood and manufactures of:						
Boards, deals, and planks	49,850	996,712	339	. 11,180	4,085	71,525
Furniture		378,380				15,674
All other		618,047		3,436		29,808
Wool, manufactures of		223,674		80		8,663
All other articles	: : : : : : : : : : : : : : : : : : : :	1,260,031		40,995		276,240
Total value		33,774,263		897,695		4,115,039

Consolidated report of financial institutions in

	Banco de Puerto Rico	Banco Territorial y Agricola	American Colonial Bank	First National Bank of Porto Rico	Crédito y Ahorro Ponceño
RESOURCES					
Bonds	\$1 52,000.00	\$339.010.00	\$1,557.261.32	\$100,000.00	
Call loans Stock investments			140.495,36	140,675.00	17,883.74
Amount due by stock- holders	300,000.00	275,215.00		140.075.00	
Amount loaned on collaterals	519.560.57	61,266.67	475,528.22	33,405.00	
Amount loaned on per-					
sonal securities Amount loaned on real	918,079.35	1,343,378.98	949,727.63	64,062.58	432,684.36
estate	289,267.85	761,891.98	93,003.71		16,424,39
Overdrafts			2,222.84	275.75	
tutions, and private	533,305,83	358.881.92	849.846.58	65.186.76	112,235,09
Real estate, owned	40,000.00	70.000.00	65,303,75	05.160.76	52.856.10
Real estate, by fore-	6,017,13	98,245,76			
closure Pending installments of	0,017,15	08,249.70		 	
real estate sold Furniture and fixtures.	7.756.87	2,498,55	12,775.88	900.00	2,625,00
Taxes	5.834.51		899.02	1,155,33	1.024.15
Expense account Cash on hand: Bills—	27,625.36		15,439.44	2,234.56	6,627.95
Legal tender notes Spanish bank	294,923.00	322,777.00	703,923.00	33,000.00	176,949.00
notes	6.775.00	2.405.00	5,420.00	230.00	1,295.00
Gold coin	32,757.50 57.002.00	47.160.00 3,400.00	110,790,00 10,5 0 8.00	30.00 300.00	13,015.00 2,201.00
coin) Cash items. checks	4,623.49	1,287.07	27,633.70	91,39	3,509.54
on other banks	226,125.60	107,619.67	• 157,263.12	5,956.44	78,913.91
above heads	14,177,31	103,404.90	55,011.63	11,900,00	118,300.00
Total	3,435,831,37	3,898.442.50	5,233,053.20	459,402.81	1,169,065.51
LIABILITIES					
Authorized capital stock	750.000.00	697,900.00	400,000.00	100,000.00	120,000.00
Bank building rents	1,450.71				
Surplus fund	275.000.00 4.228.04		350,000.00	20,000.00	70,000.00 10,000.00
Amount due depositors. Notes issued	1.723,729.94 537,000.00	2,279,050.97	4,100.053.66	225,578.08	691.581.01
Amount due other banks			260,683.13		
Dividends unpaid Undivided profits Commission account	472.42	2.136.60 88,881.88	1,825.00 104,662.32 15,829.09	7,626.72	
Interest account Exchange account	66.129.75 4,303.93		15,629.09	6.098.01	19,969.86 2,400.38
Taxes accrued Interest accrued	2.669.10	10.997.55			· · · · · · · · · · · · · · · · · · ·
Mortgage bonds issued. Other liabilities not	50,000.00	818.975.50			
included in above heads	9,862.11	500.00		100,100,00	255,114.26
Total	3,435,831.37	3,898,442.50	5,233.053.20	459.402.81	1,169,065.51

Porto Rico at the close of business, June 30, 1911

Caja de Economías y Présta- mos San Germán	Banco Popular San Juan, Porto Rico	Royal Bank of Canada	Bank of Nova Scotia	Caja de Economías y Préstamos Cabo Rojo	Caja Popular de Ahorros y Préstamos San Germán	Total
						\$2,280,822.60 17,883,74 281,170.36
• • • • • • • • • • • • • • • • • • • •		# # # # # # # # # # # # # # # # # # #				575,215.00
• • • • • • • • • • • • • • • • • • • •	\$70,051.18	\$845,188.04	\$198,257.00			2,203,256.68
\$148,852.46		1,399,916.79	180,912.05	\$20,708.02	\$126,598.71	5,584,920,93
1,832.63	73,966,98	74,644.57	35,005.99		2,296,00	1.238,683,54 112,149,15
39,017.22	51,721.87 173.04	680.100.67	17,732.79	1,794.90	23,899.53	2,733,723.16 228,332.89
						104,232.89
748.97 442.14 1,488.68	278.68 2,465.35	3,543,36		100.60	717.81 224.57 1,230.94	28.402.36 9,579.72 61,117.48
11,197.00	2,955.00	219,669.00	52,815.00	874.00	5,766.00	1,824,848,00
2,595.00 700.00	$\begin{array}{c} 560.00 \\ 1,245.00 \\ 85.00 \end{array}$	1.030.46 7.188.00	23,120.00 150.00	675.00 78.00	1,620.00 1,200.00	16.685.00 234.037.96 82,812.00
9,155.23	215.03	22,579.07	415.15	359,86	4.289.06	74,158.59
915.37		61,933.76	91.41	905.00	6,975.32	646,699.60
	2,858.63					305,652.47
216,944.70	206,575.76	3,315,793.72	508,499.39	25,957.22	174,817.94	18,644,384.12
45,630.00 7,009.63 147,136.32 6,047.89 106.57 2,517.01 8,481.35	30,000.00 553,94 165,893,63 57,34 13,30 5,887,66	2,737,797.10 566,465.20 11,261.72 269.70	346,842.24 698.05	9,500.00 8,452.24 1,384.70 2,047.24	30,000.00 1,897.21 126,799.42 8,859.25 73.68 7,188.38	1,737,400.00 445,630.00 1,450.71 724,460.78 14,228,04 12,552,914.61 537,000.00 844,138.22 12,192.05 204,173,65 18,821.60 130,063.97 6,974.01
15.00	1 100 00		157 OF 0 0:	4 PMG O		868,975.50
15,93	1,169.89	0.015 =00 =	157,950.64	4,573.04		529,285.87
216,944.70	206,575.76	3,315,793.72	508,499.39	25,957.22	174,817.94	18,644,384.12

Transactions in Porto Rico in the calendar year 1910 by insurance companies

"A," Fire Insurance

Name of company	Fire insurance written	Gross pre- miums thereon	Losses paid in 1910	Losses in- curred in 1919
Aachen & Munich Fire	\$3,889.371.91	\$15,491.19	\$ 6,165.28	\$6,165.28
Atlas Assurance	191.998.00	1,448.72		
British American Assurance	685,974 00	4,994.15		21.75
Commercial Union Assurance		11,774.03	499,00	499.00
Feuer Assecuranz von Hamburg		8,803.53		
Guardian Assurance	5.028,915.50	24,218.71	10,106.16	!
Hamburg-Bremen Fire	5,097,610,91	19,284.24	1.140.98	1,140.98
La Baloise Fire	1 0 11 11 10 00	9,977,66	9,009,91	9,009.91
Liverpool, London & Globe	1.046,960,00	7.082.59	3,215.00	3,215.00
London Assurance Corporation	623 180,00	5.340.78	743.50	
L'Union de Paris		9,232.52	3,700.00	4,125.00
Magdeburg Fire		12,343,17	6.845.88	6,845.88
North British & Mercantile	9.900.094,43	39,794.09	31.937.69	31,937.69
North German			13,255.82	13,255.82
Northern Assurance		13,459.73	653,73	653.73
Norwich Union Society	0.50 000 50	30,950,10	9,543,34	9,643,34
	For 500 00	6.033.51	3,804,95	3,804.95
PalatinePhoenix Assurance	109.100.00	543.50		
Prussian National		11.750.35		
	1 077 070 00	7.082.36	76.00	76.00
Royal (Lancashire)	0.077.051.00		3,491.56	3,491.56
Royal (Limited)	4 540 005 00		8,595,93	8,595,98
Western Assurance	1,510,201,00	22.202.00	.,	
Total	59,072,983,47	287,827.40	112,784.73	102,481.83

"B," Marine Insurance

Name of company	Marine	Gross pre-	Losses	Losses in
	insurance	miums	paid in	curred in
	written	thereon	1910	1910
Agrippina British & Foreign German-Lloyd Indemnity Mutual International Lloyd Mannheim North German Royal (Limited)	2,303,944,66 1,546,614,14 23,181,67	5,472.39 188.39	\$635.00 6,593.07 523.05 1,777.01 4,870.80 641.73	\$6,593.07 477.01 4,870.80 641.73

"C," Life Insurance

Name of company		vived, etc	Discon- tinued by death, lapse, surrender,	Polices in force Dec. 31, 1910	Annuities in force, annual payments
	1000	in 1910	maturity, etc., in 1910	No. of Contract of	payments
New York Life Insurance	\$2,257,402,00	\$326,283.00	\$220,154.00	\$2,363,531.00	\$482.00
Sun Life Assurance Co.,	1,723,127.57	661,450.00	223,823.90	2,160,753.67	
The Imperial Life Insur-		49.000.00		49,000.00	
The Manufacturers Life	1 000,000,000	12,119.00	31,802.00	583,817.00	
The Mutual Life Insuran- ee Co., of New York	1		15,257.00	193,100.00	
Total	4,792,386.57	1,048,852.00	491,036.90	5,350,201.67	482.00

Transactions in Porto Rico in the calendar year 1900 by insurance companies —Continued

"D," Guaranty Insurance

Name of company	Bonds written	Gross pre- miums thereon	Losses paid in 1910	Losses in- curred in 1910
American Surety Co., of New York Fidelity & Deposit Co., of Maryland National Surety Co	\$1,402,500.00 2,049,088,98 1,044,942.00	\$6,484.57 10.784.34 5,247.04	\$1,043.51 1,000.00	\$1,045,23 1,000.00
Total	4,496,530.98	22,515,95	2,043.51	2,045.23

"E," Indemnity Insurance

Name of company	Indemnity	Gross pre-	Losses	Losses in-
	insurance	miums	paid in	curred in
	written	thereon	1910	1910
*Travelers Indemnity Co	• • • • • • • • • • • • • • • • • • • •	\$1,760.77	\$150.49	\$150.49

 $[\]boldsymbol{\ast}$ The Travelers Indemnity Co. furnished no statement of the amount of indemnity insurance written.

List of domestic corporations registered in the Office of the Secretary of Porto Rico

NAME.	Location.	PRINCIPAL PURPOSES.	PAID IN CAPITAL	TOTAL AUTHORIZED CAPITAL STOCK.
*Banco de Fuerto Rico	San Juan San Juan San Juan	Banking	\$450,000.00 18,000.00 320,672.77	\$750,000.00 18,000.00 2,400.00 39,614.52
*Crédito y Ahorro Ponceño	Ponce	Banking Electric light and power	120,000.00 38,100.00	$120,000.00\\38,100.00$
*Sociedad Anónima Tranvía de Mayagüez The Bonnie Fruit Company	Mayagüez San Juan. San Juan	Electric power. Fruits. General merchandise.	27,840.00 13,940.00 25,000.00	$27,840.00\\20,000.00\\25,000.00$
Ponne Agricultural and Industrial Com-	Ponce	Agricultural products	10,000.00	25,000.00
The Providencia Central Company The Providencia Central Company The Enriqueta Land Company Central Cambalache	San JuanArroyoArroyoArroyoArecibo	General merchandise	34,000.00 175,000.00 75,000,00 1,200,000.00	100,000.00 750,000.00 250,000.00 1.200,000.00
The Redemptorist Fathers of Porto Rico The Solitaria Land Company The Juncos Central Company.	Mayagüez Humacao	Charitable work	5,000.00	5,000.00 500,000.00
The San Juan Hippodrome Company The Fajardo Fruit Company The Caribbean Fruit Company	San Juan	Horse racing. Fruits	7,500.00	1,000,000.00 7,500.00 100,000.00
The Yabucoa Sugar Company. Porto Rico Pineapple Company. Alta Vista Fruit Company. The Mabilla Mining Company.	San Juan. San Juan. San Juan. San Juan.	Sugar. Sugar. Pineapples, etc. Fruits.	10,410.00 600,000.00 11,400.00 8,600.00 100,000.00	20,000.00 1,000,000.00 150,000.00 50,000.00 100,000.00

*Organized and incorporated under Spanish law prior to American occupation,

25,000.00 25,000.00	10,000.00	200,000.00 $1,100,000.00$	50,000.00	500,000.00	40,000.00	500,000.00	40,000.00	00.000.00	60.000.00	2,600.00	100,000.00	50,000.00	15,000.00	2 000.00	1.000 000.00	10,000,00	500,000.00	10,000.00	100,000.00	$^{290,000.00}_{10,000.00}$	350,000.00	35,000.00	10,000.00	720,000.00	50,000.00	50,000.00
9,000.00 $15,000.00$	9,600.00	160,000.00 $800,000.00$	22,100.00	1,000.00	40,000.00	322,000.00	16,050.00	0,000.00	27,000.00	10,000.00	5,200.00	12,300.00	15,000.00	1,905.00	500,000.00	2,238.00	1,000.00	5,000.00	3,000.00	5.140.00	75,000.00	1,000.00	5,000.00	600,000.00	1,200.00	122,000.00
Fruits.	Fruits	Sugar	Agricultural productsApartment houses	Mining	Sugar	Sugar	Fruits		Lighterage, etc	Fruits	Pineapples, etc	Fruits	Agricultural products	General advertising	Sugar	Grape fruit, etc	Growing & manufacturing tobacco.	Agriculturel products	Shoar	Horse racing.	Machinery	Construction work	Cigars, tobacco, etc	Sugar	Agricultural products	Loodstants sunsmoot
San Juan Mayagüez	San Juan	San Juan	San Juan	San Juan	Mayagüez	San Juan	Mayagüez)	Playa de Ponce	San Juan	San Juan	San Juan.	San Juan	San Juan	San Juan	Santurce, San Juan.	San Juan	Ponce	Mavagüez	Mayagüez	San Juan	San Juan	San Juan	San Juan	San Juan	San e dame
Arecibo Orange and Pineapple Company. The Mayagüez Fruit Cultivating Company of Porto Rico.	Enterprise Fruit CompanyThe Salto Grande CompanyThe Insular Dock Company	Plazuela Sugar Company	Miramar Apartment House Company	Concepción Mining Company	Central Eureka, Incorporated	Fuerto Rico Sugar Company	The Porto Rican Fruit Growing and		The Ponce Lighter Company	Colonial Dingeral Company	Coronial Fineappie Company of Forto Kico	The Mesilla Fruit Company.	The Glorieta Garden Company	The Advertising Company of Porto Rico.	Loiza Sugar Company	Sea Island Grape Fruit Company	Compania rapacalera de Fuerio Kico	Loetitia Estate Company	Mayagüez Sugar Company	Hipódromo de Mayagüez	The McMurtne-Guiler Company	Consejo Construction Company	Santa Isabel Sugar Company	Nathaniel A. Walcott, Incornorated	Sociedad Industrial La Enscalduna	I THE TAX TO SELECT THE PARTY OF THE PARTY O

List of domestic corporations registered in the Office of the Secretary of Porto Rico-Continued

NAME.	Location.	PRINCIPAL PURPOSES.	PAID IN CAPITAL	TOTAL AUTHORIZED CAPITAL
			Carman.	STOCK.
Compañía Salinera de Cabo Rojo	San Juan	Salt	\$56,666.67	\$100,000.00
The Mayaguez Light and Ice Company	Mayagüez	Electric power and ice	55,000.00	75,000.00
The Humacao Fruit Company	Naguabo	Fruits	3,450.00	10,000.00
Arkadia Sugar Company	San Juan	Sugar	12,500.00	150,000.00
Soller Sugar Company	Lares	Sugar	10,000.00	100,000.00
Benítez Sugar Company	Vieques	Sugar	500,000.00	500,000.00
Inabona Sugar Company	San Juan	Sugar	2,000.00	60,000.00
Compañía Azucarera El Ejemplo	Humacao	Sugar	350,000.00	350,000.00
Cayey Sugar Company	San Juan	Sugar	3,000.00	200,000.00
Scoville, Mott & Co., Incorporated	San Juan	Agricultural products	1,600.00	125,000.00
Marvin & Jones, Incorporated	Juana Díaz	Agricultural products	20,000.00	20,000.00
The A. A. Dayid, Limited	Cataño	Transportation, warehousing, etc	1,500.00	200,000.00
The Ponce Sanitary Milk Company	Ponce	Milk	00.000.0	100,000.00
Borinquen Sugar Company	San Juan	Sugar	250,000.00	1,000,000.00
The Porto Rico Fruit Exchange	San Juan	Fruits	1,500.00	100,000.00
Antilles Navigation Company	San Juan.	Sulpping	1,000.00	00.000,00
S. Ramírez & Co	San Juan	Commission merchants	30,000.00	100,000.00
Mayaguez Automobile and Transporta-	Mayaguez	Automobile transportation	1,000.00	10,000.00
min Dont Ding Done Commons	00000	Durage	100 000 00	00 000 006
The Form file Drug Company	Folice	Duemouter immediate on to	100,000.00	50,000,00
Policial Curange of Coffic Company	Donos	Chass and Coffee	5,600,00	180 000 00
Menejas Sugar and Conec Company	Morrowing	Conorel shipping	75,000,00	75,000,00
Mayaguez Dock and Shipping Company. The Porte Rice Review	San Inan	Publishers	50,000,00	50,000,00
	Camuy	Sugar	120,000.00	200,000.00
Central Vannina.	San Juan	Sugar	375,000.00	500,000.00
Central Alianza	Arecibo	Sugar	275,000.00	500,000.00
Utuado Sugar Company	Utuado	Sugar	163,000.00	300,000.00
The Imperial Fruit Company	Bayamón	Fruits	1,200.00	50,000.00
Compañía Teatral de Aguadilla	Aguadilla	Amusements	1,000,00	12,000.00

15,000.00 50,000.00 50,000.00 250,000.00 50,000.00 25,000.00 100,000.00	500,000.00 30,000.00 200,000.00 10,000.00 20,000.00 10,000.00 500,000.00 3,000,000.00	150,000.00 500,000.00 4,000.00 35,000.00 25,000.00 25,000.00	25,000,00 1,500,000.00 50,000.00 1,000,000.00 1,000,000.00 150,000.00 25,000.00 25,000.00 25,000.00 25,000.00
9,100.00 15,200.00 5,000.00 1,000.00 1,000.00 6,000.00 1,000.00	202,430.00 1,000.00 15,000.00 2,600.00 10,000.00 1,000.00 261,000.00 1,450,000.00	150,000.00 50,000.00 2,010.00 1,000.00 1,000.00 1,400.00	2,000.00 3,000.00 1,000.00 19,000.00 25,000.00 4,000.00 300,000.00 4,000.00 30,000.00 2,700.00
Manufacture of ice, soda water, etc. Newspaper and general publishing. Brewing and distilling. Publishers Foodstuffs Construction and lease of building for Casino of Porto Rico.	Sugar Fruits Leather Deprate cafe Actated water, etc Club Distilling Electric light, power, and trans-	General construction Sugar Automobile transportation Fruits Automobile transportation Fruits	Bay rum Sugar Fruits Auto transportation Sugar Sugar Sugar and coffee General merchants Theatrical organization Distilling Drugs Ice.
Arecibo San Juan Arroyo San Juan San Juan San Juan San Juan	San Juan. Arecibo San Juan. Ponce. San Juan. Arecibo	San Juan. San Juan. Ponce. San Juan. Aguadilla	Juncos San Juan. Río Piedras San Juan. San Juan. Pouce. San Juan. San Juan. Mayagüez.
Arecibo Ice and Soda Water Company The Times Publishing Company F. Virella Uribe Drug Company Porto Rico Brewing Company Porto Rico Progress Publishing Company. Sociedad Industrial La Unión Asociación Constructora del Edificio Casino de Puerto Rico.	Plata Sugar Company The Woodsum Fruit Company Compañía Curtidora de Puerto Rico City Club Ponce Mineral Water Casino de Puerto Rico Porto Rico Distilling ('o Porto Rico Railway, Light & Power Co	Porto Rico Construction Co. Compaña Azucarera del Toa Atlas Line Campo Alegre Fruit Co. Aguadilla Transportation Co. Bayamón Fruit Growers' Association of Puerto Rico.	Martinez Bay Rum Co. Carmen Centrale The Loiza Fruit Co. The Central Auto Company Compañta Azucarera de la Carolina. Central Corsica. Jayuya Development Company Finlay, Waymouth & Lee (Inc.) Sociedad Artístico Teatral. Vannina Distilling Company The Mayagüez Drug Company The Caguas Ice Company

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TOTA AUTHORIZED CAPITAL STOCK.	\$350,000.00 250,000.00 5,000.00 400,000.00 10,000.00 100,000.00 100,000.00 150,000.00 25,000.00 25,000.00 25,000.00
PAID IN CAPITAL.	\$25,000,00 3,000.00 1,000.00 250,000.00 1,018.00 2,200.00 7,500.00 2,000.00 1,200.00 2,000.00 5,000.00 5,000.00 5,000.00
PRINCIPAL PURPOSËS.	Sugar. Mining Theatrical Sugar Fruit Agricultural products Mineral water Fruit Agricultural products Sugar Soap Sugar Dealers in bottles Automobiles and Auto transportation.
Location.	San Juan. San Juan. Juncos. Bayamón Bayamón Caguas Ponce Cabo Rojo Salinas Juncos. Río Piedras San Juan. Ponce
NAMË.	Cidra Sugar Company. The Porto Rico Mines Company. Sociedad Teatro de Juncos. Central Juanita (Inc.). The Parkhurst Fruit Company. Sola é Hijo (Inc.). Jovero Land Company. Romaguera Pastillo Company. The Prescott & Mehrhof Company. The Prescott & Mehrhof Company. The Juncos Mascabado. Compañía Azucarera de Caguas. The Bottling Material Company. The Ponce Auto Transportation Co.

List of foreign corporations registered in the office of the Secretary of Porto Rico

			diese or the society	is of total actor		
Лате	Location	Agent	Address	Principal purposes	Paid in capital	Total authorized capital stock
British and Foreign Marine Insur-	Liverpool, England	Körber & Co	San Juan	Insurance	\$1,302,480.00	\$6,512,400.00
Indemnity Mutual Marine Assur-	London	Sobrinos de Ezquiaga	San Juan	Insurance	1,005,000,00	5,025,000.00
Magdeburg Fire Inssurance Com-	×	Körber & Co	San Juan.	Insurance	750,000.00	3,750,000.00
New York Life Insurance Com-	Mew York City	José R. Solé	San Juan	Insurance	Company purely mutual.	ely mutual.
North British Mercantile Insur-	London, England	Moral & Co	Mayagüez	Insurance	3,437,500.00	3,437,500.00 15,000,000.00
Northern Assurance Company	Aberdee ; nd.	J. Ochoa y Hermano	San Juan	Insurance	1,500,000.00	15,000,000.00
Norwich Union Fire Insurance	Norwich, England	J. T. Silva & Co	San Juan	Insurance	00.000,099	5,500,000.00
Prussian National Insurance Com-	Stettin, Germany	Körber & Co	San Juan	Insurance	562,500.00	2,250,000.00
Pany. Royal Insurance Company, Lim- Liverpool, England	Liverpool, England	Körber & Co	San Juan	Insurance	1,959,135.00	1,959,135.00 15,000.000.00
Guánica Centrale	Jersey City, N. J	Julius Umbach	Ponce	Sugar	50.000.00	50.000.00
Swift & Company	Chicago, Ill	Н. И. Сюу	San Juan	Foodstuffs and pro-	50,000,000.00 50,000,000.00	50,000,000.00
American Colonial Bank	New York City	Frank M. Welty	San Juan	Banking	400,000.00	500,000.00
New York and Porto Rico Steam-	New York City	Edward Ferrer	San Juan	Transportation	50,000.00	50,000,00
Manufacturers' Life Insurance	Toronto, Canada	Fritze, Lundt & Co	San Juan	Insurance	300,000.00	3,000,000.00
Pompany. Potto Rican-American Tobacco	Newark, N. Y	Luis Toro	San Juan	Growing and manu-	1,999,400.00	2,000,000.00
San Juan Ice and Refrigerating	Jersey City, N. J	Hubert Needham Clarity.	San Juan	Manufacturing lee	67,000.00	100,000.00
American West Indies Trading	East Orange, N. J	Pedro Schira	San Juan	Tobacco	500,000.00	200,000.00
North German Insurance Company Hamburg, Germany.	Hamburg, Germany.	Körber & Co	San Juan	Insurance	446,428.58	1,785,714.29
Fire Insurance Campany of 1877 Sun Life Assurance Company of Canada.	Hamburg, Germany. Montreal, Canada	Hamburg, Germany. Sanders, Philippi & Co Montreal, Canada Gandia & Stubbe	Aguadilla	InsuranceInsurance	47,600.00 105,000.00	714,000 00

List of foreign corporations registered in the Office of the Secretary of Porto Rico-Continued.

	80. 2	removes received in the Omee of the Selecaly of Folio Kico-Continued.	the Secretary of Fi	orto kico—Continue	ed.	
Name	Location	Agent	Address	Principal purposes	Paid in capital	Total authorized capital stock
Palatine Insurance Company,	London, England	Gandía & Stubbe	San Juan	Insurance	\$500,000.00	\$500.000.00
Mannheim Insurance Company	Manuheim, Germany.	Körber & Co	San Juan	Insurance	200,000,00	2,500,000.00
Commercial Union Assurance Company	London, England	Finlay, Weymouth &	San Juan	Insurance	1,750,000.00	1,750,000.00 14,750,000.00
Aachen & Munich Fire Insurance Company.	Aachen, Germany	Fritze, Lundt & Co	San Juan	Insurance	450,000.00	2,250,000.00
Hamburg-Bremen Fire Insurance Company.	Hamburg, Germany.	Fritze, Lundt & Co	San Juan	Insurance	615,000.00	1,500,000.00
Porto Rico Fruit Company	Johnstown, N. Y	Arthur B. Mitchell	Bayamón	Fruits	6,000.00	00.000,0
Compañía de los Ferrocarriles de Puerto Rico.	Madrid, Spain	Eduardo Acuña Aybar	San Juan	Transportation	579,000.00	579,000.00
Mutual Life Insurance Company of New York.	New York City	Wm. Körber	San Juan	Insurance	Company purely mutual.	rely mutual.
Ponce Railway and Light Company.	East Orange, N. J	Thos. G. Weber	Ponce	Electric light, power	50,000.00	90,000.00
German Lloyd Marine Insurance Company.	Berlin, Germany	Villar & Co	San Juan	and transportation. Insurance	30,940.00	714,000.00
Fidelity and Deposit Company of Maryland.	Baltimore, Md	Frank M. Welty	San Juan	Surety bonds	2,000,000.00	2,000,000.00
American Railroad Company of Porto Rico.	New.York City	Jean B. Merier	San Juan	Transportation	20,000.00	1,000,000.00
West India Oil Company	Bayonne, N. J	C. H. Wanzer	San Juan	Oil	100,000,00	100,000.00
Guardian Assurance Company, Limited.	London, England	Villar & Co	San Juan	Insurance	4,866,500.00	9,733,000.00
Porto Rican Leaf Tobacco Com-	Jersey City, N. J	Luis Toro	San Juan	Growing and manu-	500,000.00	2,000,000.00
Singer Sewing Machine Company.	Elizabeth, IN. J	Guillermo A. Prahl	San Juan	facturing tobacco. Sewing machines	1,000,000.00	1,000,000.00
The Gustavo Preston Company	Portland, Me	E. Lavergne	Naguabo	Agricultural products	9,000.00	50,000.00
Central Los Caños	New York City	Henry J. F. Pohlman	Arecibo	Sugar	50,000.00	50,000.00
Liverpool and London and Globe Insurance Company.		Liverpool, England Gandía & Stubbe	San Juan	Insurance	1,228,200.00	1,228,200.00 10,000,000.00

1.400,000.00 3,000,000.00 100,000.00 500,000.00	.72 714,286.00	.00 10,000.00	00 25,000.00	.00 50.000.00	.00 2,500,000.00	00.000,0	10,000.00	240,000.00	0.00 100.000.00	0.00 500,000.00	0.00 100,000.00	250,000.00	0.000 9,000.00	0.000 60,000.00	0.000 550,000.00	0.000 10,000.00	3,000,000.00	0.00 750,000.00	00.000,000 00.00	0.00 15,000.00	0.00 15,000.00	0.00 600,000.00
1.400,000.00	178,571.72	9,600.00	19,000 00	29,900.00	2,500,000.00	6,000.00		134,150.00	38,000.00	200,000.00	50,000.00	250,000.00	8,100.00	00'000'09	550,000.00	10,000.00	2,000,000.00	411,000.00	14,400.00	15,000.00	s 11,200.00	. 600,000.00
InsuranceInsurance	Insurance	Fruits	Agricultural products	Agricultural products	Surety bonds	Photographic sup-	Fruits.	Growing and manu-	Growing and manu-	Transportation	Agricultural products	Mining, etc	Fruits	Sugar	Sugar	Growing and manu-	Sugar	Sugar	Agricultural products	Canning pineap-	Agricultural products	Sugar
San Juan	Playa Mayagüez	San Juan	San Juan	Vega Baja	San Juan	San Juan	Cataño	Caguas	San Juan	Central Aguirre	Vega Baja	San Juan	San Juan	Naguabo	Aguadilla	Caguas	Fajardo	Fajardo	Bayamón	Mayagüez	Bayamón	Central Aguirre
Arturo Bravo José C. Barbosa	Moral & Co. S. en C	Nathaniel A. Wolcott	Nathaniel A. Wolcott	W. Francis Graham	H. L. Cochran	E. L. Mudge	Chas. B. Emerson	Harrison Johnson	Luis Toro	Loring N. Farnum	C. D. Smith	W. D. Noble	Carl G. Thompson	Philip G. Mumford	Georges Servajean	Henry L. Marks	Jorge Bird y Arias	Jorge Bird y Arias	W. M. Gibbs	Raleigh F. Haydon	Chas. P. Avery	Loring N. Farnum
Toronto, Canada Cincinnati, Ohio	Berlin, Germany	York, Me	Pierre, S. Dak	Kittery, Me	New York City	Chattanooga, Tenn	Boston, Mass	Newburgh, N. Y	Jersey City, N. J	East Orange, N. J	Buffalo, N. Y	New Orleans, La	Johnstown, N. Y	New York City	Paris, France	New York City	New York City	Greenwich, Conn	Dunkirk, N. Y	New York City	Herkimer, N. Y	Portland, Me
urance Com- ife Insurance	International Lloyd Joint Stock Insurance Company.	The Candelaria Fruit Company	The Mutual Plantation Company	The Puerto Rico Planters' Com-	American Surety Company of New	Waldrop Photographic Company	Espinosa Fruit Company	Cayey-Caguas Tobacco Company Newburgh, N.	The Industrial Company of Porto Jersey City, N. J	Force & Guayama Railroad Com-	Vega Baja Fruit & Land Company.	Mona Island Phosphate Company.	The Southern Cross Fruit Company.	Central San Gristóbal	Sucrerie Centrale "Coloso"	West Indies Commercial Company.	The Fajardo Sugar Company	The Fajardo Development Com-	Porto Rico Orange and Cotton	Porto Rico Canning Company	Herkimer-Porto Rico Land and	Central Aguirre Company

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foreign corporations	THE REAL PROPERTY AND PERSONS ASSESSED.
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Name	Location	Agent	Address	Principal purposes	Paid in capital	Total authorized capital stock
The Western Assurance Company. Toronto, Canada.	Toronto, Canada	Sanders. Philippi & Co		Two controls		
South Porto Rico Telephone Com-	Portland Ma	Sanchez Morales & Co		ınsurance	\$2,500,000.00 \$2,500,000.00	\$2,500,000.00
pany.			Ponce	Telephone system	30,000.00	50,000,00
Forto Kico Grove and Garden Company.	Olean, N. Y	Newton L. Reed	San Juan	Agricultural products	00 803 06	000000
Day Porto Rican Fruit Company	Dunkirk, N. Y	Ralph D. Day	Manatí	Fruite	00.600,00	40,000.00
Buffalo and Porto Rican Fruit	Buffalo, N. Y	Geo. K Knjoht	Dowoolanate	Fruits	29,525.00	30,000.00
Company. The West India Cigar Company		The state of the s	ьагселопета	Fruits	19,500.00	30,000.00
Section of the sectio		F. Derizanz	Arecibo	Cigars, etc	100,000.00	100,000,00
Sucreries de Saint Jean	Brussels, Belgium	Charles Roux de Vence	Caguas	Sugar	100 000 00	400 000 00
San Antonio Docking Company	New York City	Edward Ferrer	San Juan.	Docks wharves ato	1 000 00	00.000,00±
Porto Rican Express Company	New York City	Irving R. Pierson	San Juan	Express service	1,000,00	1,000,00
United States Colonial Fruit Com-	New York City	E. A. Bailey	Manatí	Emiles Scritce	90,200.00	100,000,00
The Ensenada Estates, Incorpo-	Greenwich, Conn	Inline Ilmbook			10,000.00	20,000.00
rated. Bernel Estato		e unus compacin	Fonce	Land development	2,000,000.00.	2,000,000.00
Detrial Estate	Jersey City, N. J	Julius Umbach	Ponce	Land development.	61.000.00	100 000 00
San Antonio Company	Portland, Me	Edw. Ferrer	San Juan	Docks and wharves	20 000 02	20,000,001
Johnson Development Company	New York, City	Harrison Johnson	Caguas	Land development	00,000,00	00.000,00
The Porto Rico General Telephone Stamford, Conn Company.	Stamford, Conn	Sosthenes Behn	San Juan	and manufacturing.	9,200,00	20,000.00
Barceloneta Fruit Company	Gowanda, N. Y	E. M. Feringer	Barceloneta	Fruits	00,100,00	00.000,0e1
Insular Line	Portland Me	Edward Mayers		Transnorfation	0,000,001	00.000.00
Tropical Fruit Growers' Associa-	Ridgewood, N. J	W. H. Woodsum	:	Transportanon	100,000.00	100,000.00
Santa Catalina Fruit Company	Tonawanda, N. Y.	Lohn I Edmonds			05,284.00	150,000.00
anada	Montroel Ganad		:	Fruits	11,400.00	20,400.00
Canada	Monufeat, Canada Jos. R. Bruce.	Jos. R. Bruce	San Juan	Banking	4,761,030.00 5,000,000.00	5,000,000.00

250,000.00	400,000,00	6,000.00	750,000.00	100,000.00	400,000.00	4,866,500.00	150,000.00	100,000.00	2,000,000.00	600,000.00	20,000,000.00	25,000,00	30,000.00	80,000.00	30,000.00	60,000.00	65,000.00	10,000.00	2,000,000.00	1,930,000.00	714,000.00	45,000.00	20,000.00
1,000.00	300.000.00	6,000.00	750,000.00	41,600.00	100,000.00	1,000,000.00	122,200.00	100,000.00	400,000,00	000:000:009	20,000,000.00	22,500.00	30,000.00	63,300.00	23,300.00	17,760.00	45,000.00	5,500,00	625,000.00	482,500.00	714,000,00	20,000.00	4,000.00
Docks and wharves	Land dovelopment	Sugar	Surety bonds, etc	Fruits	Machinery	Insurance	Fruits	Petroleum products	Insurance	Fruits	Cigars, etc	General merchandise	Pineapples	Pineapples	Fruits	Real estate	Fruits	Fruits	Insurance	Insurance	Insurance	Fruits	Fruits
Ponce	Arecibo	Naguabo	San Juan	San Juan	San Juan	San Juan	Vega Baja	San Juan	San Juan	San Juan	San Juan	San Juan	Bayamón	Bayamón	Vega Baja	Barceloneta	Vega Baja	Mayagüez	San Juan	San Juan	San Juan	Manatí	Manatí , ,
C. C. Curtis	Hermann Pohlman	Philip G. Mumford	Harry F. Besosa	W. F. Lippitt	David W. Snedden	Charles Hartzell	J. Y. Patton	Waldemar Hepp	Fritze, Lundt & Co	W. K. Landis	P. H. Gorman	Robert L. Holmes	Leland Hallock	Chas. F. Filbrick, Jr	C. D. Smith	E. M. Feringer	G. D. Smith	Jorge V. Domínguez	Jos. Anderson, Jr	Charles Vére	Fr. Schomburg	William A. Griffith	William A. Griffith
Portland Me	New York City	New York City	New York City	Philadelphia. Pa	New Windsor, N. Y	London, England	Buffalo, N. Y	New York City	Basle, Switzerland	Kittery, Me	Jersey City, N. J	New York City	Clinton, N. Y	Buffalo, N. Y	Buffalo, N. Y	New Castle, Pa	Buffalo, N. Y	New York City	Hartford, Conn	Paris, France	Cologne, Germany	Boonville, N. Y	Boonville, N. Y
Ponce Wharf Company	Pavenstedt Land Company	San Cristóbal Sugar Company (of	National Surety Company	Hatillo Fruit Company	The Gregg Company, Limited	Employers' Liability Assurance	The Standard Fruit Company of	Follo Arco. Fiske Brothers Refining Company.	Baloise Fire Insurance Company Basle, Switzerland	Nuera Fruit Company of Porto Rico Kittery, Me.	American Cigar Company	Plaza Provision Company	Empire Pineapple Company	The Filbrick Fruit Company of	The Truck The Company of	Captain Marquis Porto Rico Land	The Columbo Tropical Fruit Com- pany	G. Casesa Company	Travelers' Indemnity Company	L'Union Compagnie d'Assurance contra l'Incendie.	Agripping Marine, River and Land Transmort Insurance Company	Second Oneida Fruit Company	The Oneida Fruit Company

List of foreign corporations registered in the Office of the Secretary of Porto Rico-Continued.

Name	Location	Agent	Address	Principal purposes	Paid in capital	Total authorized capital stock
Armour & Company	Jersey City, N. J	Manuel Gómez	San Juan	Foodstuffs and pro-	\$100,000.00	\$100,000.00
Dooley, Smith & Company	New York City	Norval P. Nichols	San Juan	Imports and exports.	448,100.00	500,000.00
ton.	London, Eugland	r. schomburg	San Juan	Insurance	2,181,530,00	4,363,060.00
The Laguna Fruit Company of Porto Rico.	Buffalo, N. Y	Geo. W. Robinson	Río Piedras	Fruits	25,000.00	30,000 00
Fortuna Estates.	New York City	Julius Umbach	Ponce	Land development	1,000.00	1,200,000.00
Colonial Sugar Company	Greenwich, Conn	Julius Umbach	Ponce	Sugar	450,000.00	450,000.00
Minute Tapioca Company	Orange, Mass	Tom B. Mathews	Toa Baia	Tabloca, etc	3,000.00	50,000,000
Fitzpatrick-Wenar Land and Fruit	New Orleans, La	Jos. Wenar	Toa Alta.	Lana development.	48,660.00	200,000;00
Porto Rico Mercantile Company	New York City	Waldemar Hepp	San Juan.	Molasses	1 500 000 00	1 500 000 00
Montreal Trust Company	Montreal, Canada	J. R. Bruce	San Juan	Banking	500.000.000	1.000,000.00
Logen Tobacco Company	New York City	J. R. F. Savage	San Juan	Growing and manu-	23,300.00	75,000.00
The Imperial Life Assurance Company of Canada.	Toronto, Canada	Arturo Bravo	San Juan	lacturing tobacco. Insurance	450,000.00	1,000.000.00
Plaza Fruit Company.	Chicago, Ill	Geo. L. Elkins	San Juan	Fruits	12,000.00	20,000,00
Munyon's Homeonhatic Home	Providence, R. I	Beriah A. Wall	San Juan	Fruits	5,000.00	5,000.00
Remedy Company	r maderbura, ra	U. M. WOUL	Bayamon	Patent medicines	82,500.00	82,500.00
Porto Rico.	Buffalo, N. Y	E. J. Garrett	Вауатбр	Fruits	109,500.00	150,000.00
R. S. Hammond Fruit Company The Graham & Granger Fruit	New York City	Pablo VincenteRobert Graham	Ponce	Fruits	30,000.00	30,000.00
Company. Pomelo Fruit Company	Troy, N. Y.	Dean M. Barber	Bavamón	Fruits .	200.002	50.000.00
Import Packing Company	Jersey City, N. J	Edward S. Paine	San Juan	Fruits	8,000.00	50,000.00
Forto Rico.	Chnton, N. Y	F. B. McLaughlin	Candelaria, Manatí	Fruits	35,000.00	50,000.00
E South Atlantic Fruit Company	Buffalo, N. Y New York City	Emil Freheit	Río Piedras	Fruits	30,000 00 50,000.00	30,000.00
1	-	,		chants.		

3,000.00 1,000,000.00	13,635,446.00	500,000.00	100,000.00	75,000.00 30,000.00 100.000.00	200,000,00	3,030,000,00 30,000.00	10,706,300.00	42,000.00 15,000,000.00	10,000,000.00 400,000.00	10,000.00	2,882,850.00	27,000,000.00 36,000,000.00 750,000.00 1,000,000.00	100,000,00	30,000.00
3,000.00	1,656,111.00	500.000.00	10,000.00	1,000.00	106,000.00	3,000,000.00	1,320,000.00	21,000.00 1,320,625.00	3,146,099,45	1,000.00	378,285.00	27,000,000.00 750,000.00	22,500.00 7,040.00	15,000,00
Sugar	Insurance	Insurance	unactures. Sugar and coffee	Fruits	Machinery	Banking	Insurance	Fruits Insurance	Insurance	Manufacture and growing of tobacco.	Insurance	OilInsurance	Fruits	Fruits
Naguabo	San Juan	San Juan	Las Marías	San Juan	San Juan	San Juan	San Juan	Río Piedras	San JuanFajardo	San Juan	Mayagüez	San Juan	San Juan Barceloueta	Manatí
Edwin E. Olding	Körber & Co	E. B. Wilcox	Julio F. Anduze	Wm. W. Boyd	O. M. Wood	Blair Roberston	J. T. Silva & Co	Emil Freheit	J. Ochoa y Hno	Gregorio López Falco	Sucesores de Frontera,	S. en C. Martin Travieso, Jr J. T. Silva & Co. S. en C	Frank H. Beardsley P. C. Adams	F. B. McLaughlin Laurence W. Davis
obal. Incor- Greenwich, Conn	London, England	New York City	New Brunswick, N, J.	Perry, N. Y	Philadelphia, Pa	Halifax, N. S.	London, England	New York City	London, England	Orange, N. J	York, England	Beaumont, Tex	Dunkirk, N. Y	Boonville, N. Y Augusta, Me
The Central San Cristôbal. Incor-			Thanita Sugar and Coffee Planta-	tion Company. Toa Alta Citrus Fruit Company Horseshoe Valley Fruit Company.	German Commercial Accident	bancion, Noss & Sincian Company, Limited. Bank of Nova Scotia	Atlas Assurance Company, Lim-	Suburban Fruit Company London & Lancashtre Fire Insur-	The Royal Exchange Assurance	sociation.	The Yorkshire Insurance Com-	pany, Limited. The Texas Company	ance Company. San Juan Fruit Company	any

Number of acres and head of live

(Corrected to

					REAL	PROP	ERTY
Municipality	Cane	Coffee	Tobacco	Pine- apples	Orange	Cocoa- nuts	Minor fruits
Adjuntas	309	9,374					2,138
Aguada	3.674	718	48			214	1,333
Aguadilla	1.666	130	68			131	3.30
Aguas Buenas	15 12	$\frac{1.627}{2.137}$	305 1,816			3	1,335 1,325
Aibonito Añasco	$\frac{12}{4,243}$	4,570	1,010			106	1,46
Arecibo	9,762	2,598	243	46	1.166	9	2.766
Arroyo	2,388	134.5	.5			26	248
Barrànquitas	35	560	598				2,59
Barros	$\frac{2}{2,856}$	3,037 680	255 28	141	1.206	133	5,130 1,503
Bayamón	2,890 5,374	86	9	141	1,200	423	4,41
Cabo Rojo Caguas	1.995	316	1.803	5	20	5	74
Camuy	1,614	1,198	275	35		4	1,58
arolina	4,255	68	1	8		18	74
Cayey	18	2,891	2,642				2.80 2.88
Ciales	44	6,340	$\frac{128}{1.649}$				2,00
idra	$\frac{7}{698}$	$\frac{666}{3.592}$	1,049				3,65
Coamo	4	964	1.823				1,53
Corozal	61	890	28				1,80
Culebra							
Oorado	2,557	125		103	265	25	319
ajardo	$7,957 \\ 6,324$	82 1.519	$\frac{1}{19}$		100	95 46	34 870
luayama	$\frac{6,524}{1,882}$	$\frac{1.519}{2.324}$	37			50	2.58
uayanilla	2.068	226	2.334				64
Iatillo	865	458	424	12		14	713
lumacao	9,791	47	600			28	63
sabela	1,306	666	515			3	3.670
uana Diaz	7,801	4,001 14	$\frac{17}{1,060}$			2	2,753 301
uncos	1,041 5,035	$\frac{14}{132.5}$	21			3	4,390
ajas	61	11.973	3				3,19
as Marías	76	13.603	3		308		896
	3,883	1.057	371		10	970	81
oiza	7,272	1,446	98	212	1,342	33	1,59 198
laricao	9.149	10,822 76				50	41
faunabo	$\begin{array}{c c} 2.143 \\ 6.963 \end{array}$	9,224	5	44	3	146	1,810
foca	1,360	2,290					1,45
forovis	300	1,596	82			.5	1,348
aguabo	5,088	17			100	56	86
aranjito	3	1,041	352			42	1,058 550
atillas	3,046 1,668	579	$\frac{2}{32}$		6	42	2,301
eñuelasonce	11,398	1.873 6,111	02	52	4		2,89
uebradillas	521	668	189		í	.8	80
incón	1,105	85				174	849
io Grande	2,903	1,116	1	5		375	604
io Piedras	2,484	370	1 1	576	784	1	1,045 2,287
abana Grande	1.615 7,534	826 58	135				1,679
alinas	4,353	2,658	81	30		24	3,94
an Juan		2,000					
an Lorenzo	1,384	700	362				1,115
an Sebastián	368	7,518	3			22	1,985 49
anta Isabel	5,401	75		10	359	3	791
oa Altaoa Baja	$\frac{112}{3.868}$	13	$\frac{38}{7}$	197	791		336
rujillo Alto	155	28			118		661
tuado	370	17,077	669				8,713
ega Alta	1.051	158	39	1	599	4	428
ega Baja	3,461	129	56	247	212	52	69(260
ieques	6,769					40	260 338
abucoa	6,040 4,798	26 5,480	235			40	7.262
	2,100	0,400	200				02
					7,394	3,341	115,576

stock for the fiscal year 1911.

August 23, 1910)

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Pasture	Tim- ber, brush	Marsh	Other lands	Total	Cattle	Horses	Mules	Pigs	Sheep	Total
12,135 7,342	18,175 1,803		103	42,231 15,760	809	455	158			1,422
7.342	1,803	4	625	15,760	1,026	248		15	7	1.296
$9,626 \\ 9,439$	3,825 5,459	52	1,294 392	20,095 18,570	1,750 924	583 162	2 2	185	66	2,586
9.026	4,943		351	19,610	1,380	301	8	24	10	1,091
7.676	4,950	53	916	23.978	940	185	21	24	3	1,091 1,723 1,173
24,861	32,440 1,081	713 190	453	75;057 9,058	4,356 1,408	$1,334 \\ 271$	49	46 12	14	5,799
4,990 10,268 14,468	5,631	Ì	555	20,246	1,113	246	1	25	52 1	1,746 1,386
14.468	14,586	14	1,176		829	268	: 9	53	6	1,185
23.067 18.493	9,340 10.280	716 154	180 1.784	39,850 41,041	$6,064 \\ 3,751$	999 467	24	101	20	7,208
26,933	4.368		913		5,276	544	22	157	247	4,624 5,842
10,223	10,134	8	32	25,108	1,987	529	64	146	55	2,781
19.549	1,880	675	252 331	27,451	6,684	829 509	17	5	8	7,543
$\frac{11.649}{6.986}$	10,047 23,838	40	331 135	30,387 40,392	1,759 957	416	78 117	53 30	24 21	2,423
10,644	5,180		220	20,551	1,019	279	5	12	21	1,541 1,315
30.057	10,146		20	48.164	5,150	1,232	402	117	212	7.113
$8.991 \\ 13.752$	3.295 6,760	35	44 8	16,693 23,307	885 2,409	284 430	50 7	19	17	1,238
3,866	695	300	244	5,111	1,553	129	2	131 15	34	2,994 1,733
8,004	1,662		10	13.070	1.441	450	9	11	106	2,017
24,442	7,654	984	500	42,158 38,723 23,788	3,974	996	19	91	32	5,112
20.691 6,321	8,949 9,305	120 596	179 689	38,723	$\frac{4,858}{1,582}$	890 288	33 45	32 49	70 30	5,883
9.240	2,576		117	17,209	2,485	372	6	88	13	1,994 2,964
13.537	8,118	11	507	24.659	2,799	559	15	34	4	3,411
$28.389 \\ 10.837$	2,084 9,845	121 879	1.185	42,778	8,049	1,049	14	147	82	9,341
39.391	11,322	783	914	27.721 59,914	2,482 4,325	542 1,059	2 152	176 76	31 81	3,233
12,317 18,419 11.675	1.588		92	16,413	2,448	210	54	26	18	5,693 2,756
18,419	6,504	642	852	35,999	4,408	757	3	232	166	5,566
4,464	10,560 10,874	• • • • • • • • • • • • • • • • • • • •	438 331	37,905 30,555	935 158	554 235	114 113	149 41	44 79	1,796
16,730	4,764	1,542	209	30.352	3,939	558	15	98	39	626 4,949
17,619	16,778	178	677	47.246	3,561	860	29	52	13	4,515
4.380	6,458 $1,599$		376 126	22,238 11,077	143 1.591	206 183	64	19	5	437
7,012 13,962	4,121	122	321	36,721	1,843	754	53	53	38	1,774 $2,741$
9,127	6,392	988	381	36,721 21,992	767	279	9	22	21	1,098
$8.858 \\ 15,486$	$10.748 \\ 4.308$	644	578	23,510.5	1,751 4,615	372	29	30	4	2,186
7.578	5,186	044	$\frac{12}{572}$	26,576 $15,790$	1,091	941 305	10 3	36 52	44 6	5,646 1,457
12,703	8.848		371	26.141	721	395	4	33		1,457
7.580	13,322	28	370	27,180	1,245	273	40	58	38	1,654
$27.180 \\ 5,990$	$19,274 \\ 3,323$	1 004	$2,352 \\ 476$	70.273 11,981	$4,731 \\ 1,371$	1,234 333	202 16	74 89	65 53	6,306
4,428	530		40	7.211	911	175		37	99	$1,862 \\ 1.123$
22,956	8,951	1,042	8	7.211 37.957.5	4,520	675	14	52	2	5,263
21,646 8, 8 71	$\frac{1,359}{4.052}$	125	$3,091 \\ 2,185$	31,479 19,971	5,660 2,164	840 303	20 12	24	. 50	6,594
25,113	8,162		187	42,737	6,341	740	28	67	303	2,479 7.479
14,773	3,839	251	295	30,250	3,273	539	13	160	53	4,038
20,352	6 406		1,260	1,260	123	161	32			316
13 974	6,406 3,058	13,900	281 612	30,599 41,416	4,848 1,531	468 549	29	82 69	27	5,425
13,974 11,999 11,281	4,429	432	21	1 22.353	2,198	371		46	$\begin{array}{c} 8\\41\end{array}$	2.186 2.656
11,281	1,882			14,551	1,811	239	1	44	4	2,099
$6,768 \\ 10,767$	1,985 97	432	578 237	14,975 12,063	$1,876 \\ 2,497$	179 369	15	11	13	2,094
23.864	45 486	81	2,031	98,291	1,501	910	$\frac{5}{262}$	$\frac{19}{218}$	106	2,890 2,997
5,231	7,112		482	15,102	970	211	1	59	6	1.247
11,658	8.131	991	452	26,079	1,835	371	. 3	45	19	2,273
20,381 18,787	2,843 8,385	53	$\frac{1,011}{672}$	31,267 29,341	$5.057 \\ 2,622$	470 453	4 9	28	79	5,638 3,084
25,111	18,412	773	151	62,222	2,800	794	153	46	54	3,847
926,894	515,137	28,798	37.137	1,989,504	171,880	34,171	2,717	3,948	,644	215,360
0,001	515,151	20,100	31,101	1,000,001	171,000	94,111	2,111	0,940	,044 ^^	∠19,500

List	of	newspapers	and	periodicals	published i	in	Porto Rico	,
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Name	Where published	Language	When published
La Democracia El Tiempo (The Times) El Boletin Mercantil El Heraldo Español La Correspondencia La Voz del Obrero Listín Comercial Unión Obrera Puerto Rico Ilustrado Gráfico. Porto Rico Review	San Juan San Juan San Juan San Juan San Juan San Juan San Juan San Juan San Juan San Juan	Spanish	Daily. Daily. Daily. Daily. Daily. Daily. Daily. Daily. Daily. Weekly. Weekly.
La Verdad. Los Sucesos Mundiales. El Defensor Cristiano. Vida Alegre. Pica Pica. Porto Rico Progress. La República Española. Boletín de la Federación Espiritista Borinquen.	San Juan San Juan San Juan San Juan San Juan San Juan San Juan San Juan	Spanish Spanish Spanish and English Spanish Spanish Spanish Spanish Spanish Spanish Spanish Spanish Spanish	Weekly. Weekly. Weekly. Weekly. Weekly. Weekly. Weekly. Monthly.
La Educación El Aguila (The Eagle) El Día El Correo del Sur La Prensa La Conciencia Libre La Voz de la Patria Pro Patria	Ponce Ponce Ponce Ponce Ponce Mayagüez Mayagüez	Spanish Spanish and English Spanish Spanish Spanish Spanish Spanish Spanish Spanish Spanish	Semi- monthly. Daily. Daily. Daily. Daily. Weekly. Daily. Semi- monthly.
La Bandera Americana La Unión Obrera Tris de Paz El Duende El Machete El Correo del Norte El Estímulo	Mayagüez Mayagüez Mayagüez Arecibo Arecibo Arecibo Guayama	Spanish Spanish Spanish Spanish Spanish Spanish Spanish Spanish Spanish	Daily. Daily. Weekly. Daily. Daily.

Weights and measures

The use of the metric system in Porto Rico was provided for by the Political Code, approved March 3, 1902. While its employment is general, it has not as yet been deemed practicable or advisable to make it compulsory, and the English weights and measures, as well as a few local standards, are still in use:

Metric Weights.—Milligram (1/1000 gram) equals 0.0154 grain; centigram (1/100 gram) equals 0.1543 grain; decigram (1/10 gram) equals 1.5432 grains; gram equals 15.432 grains; decagram (10 grams equals 0.3527 ounce; hectogram (100 grams) equals 3.5274 ounces; kilogram (1,000 grams) equals 2.2046 pounds; myriagram (10,000 grams) equals 22.046 pounds; quintal (100,000 grams) equals 220.46 pounds; millier or tonneau—ton—(1,000,000 grams) equals 2,204.6 pounds.

Metric Dry Measure.—Milliliter (1/1000 liter) equals 0.061 cubic inch; centiliter (1/100 liter) equals 0.6102 cubic inch; deciliter (1/10 liter) equals 6.1022 cubic inches; liter equals 0.908 quart; decaliter (10 liters) equals 9.08 quarts; hectoliter (100 liters) equals 2.838 bushels; kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric Liquid Measure.—Milliliter (1/1000 liter) equals 0.0338 fluid ounce; centiliter (1/100 liter) equals 0.338 fluid ounce; deciliter (1/10

liter) equals 0.845 gill; liter equals 1.0567 quarts; decaliter (10 liters) equals 2.6418 gallons; hectoliter (100 liters) equals 26.418 gallons; kiloliter (1,000 liters) equals 264.18 gallons.

Metric Measure of Length.—Millimeter (1/1000 meter) equals 0.0394 inch; centimeter (1/100 meter) equals 0.3937 inch; decimeter (1/100 meter) equals 3.937 inches; meter equals 39.37 inches; decameter (100 meters) equals 393.7 inches; hectometer (100 meters) equals 328 feet 1 inch; kilometer (1,000 meters) equals 0.62137 mile (3280 feet 10 inches); myriameter (10,000 meters) equals 6.2137 miles.

Metric Surface Measure.—Centare (1 square meter) equals 1,550 square inches; are (100 square meters) equals 119.6 square yards; hectare (10,000 square meters) equals 2.471 acres.

ENGLISH AND OTHER MEASURES.

Longitudinal Measures.—1 line is equal to 0.001,971,395 meter, or 0.002,159,317 English yard; 1 inch is equal to 0.023,657,400 meter, or 0.025,911,800 English yard; 1 foot is equal to 0.283,888,800 meter, or 0.310,941,600 English yard; 1 vara is equal to 0.851,666,400 meter, or 0.932,824,800 English yard.

Superficial Measures.—1 square vara is equal to 0.725,334,975 square meter, or 0.875,197,864 English yard; 1 cuerda is equal to 4,079.887,876,000 square meters, or 3,687.384,600,000 English yards; 1 cuerda is equal to 40.798,878,76 ares, or 0.765,900 acre.

Area and class of land owned by the insular government in various parts of the island

 $(1\;\mathrm{cuerda}{=}1.008204\;\mathrm{acres})$

Town	Number of properties	Number of cuerdas	. Class of land
Adjuntas	2	300	170 cuerdas for miuor crops, pas- ture, and cotton; 110 for woods; and 20 for sugar cane.
Aguas Buenas	2	04	4 cuerdas for minor crops, and 100 for woods.
Aibonito		1,015	150 cuerdas for minor crops, cotton or pasture; 250 woods; the balance unknown.
Añasco	1 5	Unknown	Unknown. 40 cuerdas for sugar cane; 140 for minor crops, pasture or cotton; 230 woods; the balance unknown.
Barros	29	3,295 pertaining to 24 properties; the acreage of the other 5 is unknown.	890 cuerdas for minor crops, pas- ture and cotton; 230 woods; the balance uuknown.
Bayamón	10	1,229 pertaining to 4 properties; the acreage of the remaining 6 is unknown.	65 cuerdas for cotton; 200 for minor crops or pasture; 65 woods; 700, if drained, could be used for sugar-cane; balan- ce unknown.
Barceloneta	5	700 pertaining to 4 properties, the acreage of the other unknown.	225 cuerdas for minor crops, pas- ture and part for cotton; 175 woods; the balance, if drained, could be used for sugar cane.
Cabo Rojo	17	1,520 pertaining to 13 properties; balance unknown.	300 cuerdas, if drained, could be used for sugar-cane. one part for salt mining, and the rest mangroves.

Area and class of land owned by the insular government in various parts of the island—Continued

(1 cuerda=1.008204 acres)

Town	Number of properties	Number of cuerdas	Class of land
Caguas	1 2 6	Unknown 1,206 1,671	Unknown. Unknown. 800 cuerdas, approximately, if drained, could be used for sugar-cane; the balance man-
Cayey	5	1,047 pertaining to 3 properties, and the acreage of two more	groves. 300 cuerdas for minor crops, and part for cotton; the bal- ance woods.
Ceiba	9	which is unknown. 5,731	700 cuerdas mangroves, which could be drained and used for sugar-cane; 1,200 for minor crops, and about 300 woods; the balance unknown.
Ciales	25	6,907	2,700 cuerdas for minor crops and a part for cotton; 3,400 woods; balance unknown.
Cidra Coamo		Unknown	Unknown. 65 cuerdas for minor crops, a part for cotton, 90 woods; bal- ance unknow.
Corozal		395	63 cuerdas for minor crops, pas- ture or cotton; balance un- known.
Dorado	1	355	These lands, if drained, could be used for sugar-cane.
Fajardo	13	1,404 pertaining to 6 properties; the area of remaining 7 unknown.	193 cuerdas for minor crops or pasture; 98 woods; balance un-
Guayama	6	1.637 pertaining to 5 properties; the acreage of the other is unknown.	known. 274 cuerdas for minor crops, pas- ture and a small part for cot- ton; 813 woods; the balance is unknown.
Guayanilla	3	2,633	332 cuerdas for minor crops, and
Guánica	. 7	1,272 pertaining to 2 properties; the acreage of the other 5 unknow.	2,121 woods. About 500 cuerdas, if drained, could be used for sugar-cane; 72 for minor crops; balance unknown.
Gurabo Hatillo	Ī	8, 31	Good for minor crops. Good for minor crops. Unknown.
Hato Grande Humacao	1	980	Unknown.
Isabela	2	685	440 cuerdas for minor crops, and the balance for woods.
Juana Diaz	. 20	2,323 pertaining to 19 properties; the acreage of the other is unknown.	411 cuerdas for minor crops; 447 woods; balance unknown.
Lajas	4	848	About 500 cuerdas of low land if drained could be used for sugar-cane; 110 cuerdas for minor crops, and the balance for pasture.
Lares	1	4,133	About two-thirds could be used for pasture, and the balance, woods.
Loiza	8	3,300 pertaining to 5 properties; the acreage of the remaining 3 is unknown.	About 800 cuerdas, if drained, could be used for sugar-cane; about 500 cuerdas for minor crops and pasture; about 900 cuerdas woods; balance unknown.
Luquillo	10	8,972	About 300 cuerdas could be used for minor crops or pasture. 5,000 woods, and about 100 cuerdas, if drained, could be used for sugar-cane; balance unknown.

Area and class of land owned by the insular government in various parts of the island—Continued

(1 cuerda=1.008204 acres)

Towns	Number of properties	Number of cuerdas	Class of land
Manatí	11	982 portaining to 9 properties; the acreage of the remaining 2 is unknown.	About 120 cuerdas could be used for pasture or minor crops; about 60 cuerdas woods; balance unknown.
Maricao	5	3,048	About 580 cuerdas could be used for minor crops: about 700
Mayagüez	6	810	for minor crops; 90 woods; bal-
Naguabo	11	3,773	crops or pasture; about 140 good for sugar-cane if drained, and 800 woods; balance unknown.
Patillas	21	96	For minor crops. About 70 cuerdas cotton; 825 minor crops; 460 woods; balance unknown.
Peñuelas	6	694 pertaining to 5 prop- erties, and one whose acreage is unknown.	170 cuerdas minor crops; about 50 woodland; balance unknown.
Las Piedras	2	4.519	About 1,200 cuerdas minor crops; about 250 cotton, and the bal- ance woodland.
Ponce	16	729 pertaining to 8 properties; the acreage of the remaining 8 is unknown.	About 320 cuerdas minor crops; 370 woodland balance un- known.
Quebradillas	1	500	About 200 cuerdas minor crops; a small area for sugar-cane; the balance woodland.
Río Grande	21	19.337 pertaining to 19 properties; the acreage of the other 2 being unknown.	About 1,000 cuerdas cotton; 2,500 cuerdas minors crops; 5,600 woodland; balance unknown.
Río Piedras	8	3,128 pertaining to 6 properiles; the acreage of the other 2 is unknown.	70 cuerdas used by the Agricul- tural and Normal Schools; 400 sugar-cane; 270 minor crops; balance unknown.
Sabana Grande	8	3,791 pertaining to 7 properties; the acreage of the other is unknown.	1,900 cuerdas minor crops; 1,400 woodland; balance unknown.
Salinas	34	4,360 pertaining to 31 properties; the acreage of the other 3 is unknown.	About 1,800 cuerdas minor crops; about 1,500 wooland; balance unknown.
San Germán	5	2,055	About 350 cuerdas pasture; 320 woodland; balance unknown.
San Juan	11	143 pertaining to 2 properties; the acreage of the remaining 9 is unknown.	About 160 cuerdas suitable for building plots; a great part of 4wamp land in Santurce could be used for sugar-cane, if drained.
San Sebastián Santa Isabel	1 4	Unknown	Beds of bituminous limestone. About 100 cuerdas minor crops; about 180 woodland; 50 cuer- das suitable for sugar-cane if drained; balance unknown.
Toa Alta Toa Baja Utuado	1 1 55	20	Minor crops. Minor crops. 3,500 cuerdas minor crops; 3,600 woodland; balance unknown.
Vega Baja	2	830	30 cuerdas minor crops; balance unkonwn.
Vieques	12	1,176	About 360 cuerdas minor crops or pastures; about 700 wood- land; balance unknown.

Area and class of land owned by the insular government in various parts of the island—Continued

(1 cuerda=1.008204 acres)

Town	Number of properties	Number of cuerdas	Class of land
Yauco	15	3,540 pertaining to 12 properties; the acreage of the other 3 unknown.	About 380 cuerdas minor crops; 550 woodland; about 1,000 fiber plants; 200 suitable for sugar- cane; if drained.
Yabucoa	2	46 pertaining to 1 property; the acreage of the other unknown.	46 cuerdas minor crops; balance unknown.
Culebra Island	8	1,140 pertaining to 3 properties; the acreage of the remaining 5 unknown.	Woodland, except a very small portion, minor crops.
Mona Island		Unknown	About 300 cuerdas sugar-cane and various crops; baiance woodland.
Monito Island Desecheo Island		Unknown Unknown	Unknown.

Steamship fares and travel time between San Juan and various United States and foreign ports.

San Juan to	First-clase fare		Time required	
			Days.	
New York	\$40.00	\$55.00	5	
New Orleans	40.00	55.00	6	
Galveston	50.00	55.00	7	
*Habana	50.00		8	
*Santiago de Cuba	45.00		5	
†Kingston, Jamaica	50.00		12	
†Port au Prince, Haití	40.00		10	
San Domingo City	22.00		3	
San Pedro de Macorís	20.00	22.00	3 to 3	
St. Thomas, Danish West Indies	14.00		1	
Curacao	25.00		2	
‡Maracaibo				
Puerto Cabello, Venezuela	30.00		5	
La Guayra, Venezuela	25.00		3	
Caracas				
†Cádiz, Spain	120.00	150.00	14	
†Barcelona, Spain	120.00	150.00	19	
†Genoa, Italy	120.00	150.00	22	

^{*}Most direct route; \dagger includes varios stops in route; \ddagger weekly steamers between Maracaibo and Curacao; \parallel by railroad four hours from La Guayra.

List of government telegraph and telephone stations Telegraph stations

\mathbf{A} djuntas	Cayey	Las Marías	Salinas
Aguada	Ceiba	Las Piedras	San Germán
Aguadilla	Ciales	Manatí	San Juan
Aguas Buenas	Cidra	Maricao	San Lorenzo
Aibonito	Coamo	Maunabo	San Sebastián
Añasco	Comerío	Mayagüez	Santa Isabel
Arecibo	Corozal	Moca	Toa Alta
Arroyo	Fajardo	Morovis	Utuado
Barceloneta	Guayama	Naguabo	Vega Alta
Barranquitas	Gurabo	Naranjito	Vega Baja
Barros	Hatillo	Patillas	Vieques
Bayamón	Humacao	Ponce	Yabucoa
Cabo Rojo	Isabela	Quebradillas	Yauco
Caguas	Juana Díaz	Río Grande	
Camuy	Juncos	Río Piedras	
$\operatorname{Carolin} \mathbf{a}$	Lares	Sabana Grande	

Telephone stations

Adjuntas	Caguas	Lares	Patillas
Aguadill a	Cayey	Las Marías	Ponce
Aguas Buenas	Ciales	Las Piedras	Río Piedras
Aibonito	$\operatorname{Cid}\mathbf{ra}$	Manatí	San Juan
Arecibo	Comerío	Maricao	San Loreno
Barranquitas	Gurabo	Maunabo	San Sebastián
Barros	Humacao	Moca	Utuado
Bayamón	Juncos	Morovis	Yabucoa

Public buildings throughout the island of Porto Rico pertaining to the insular government

Description	Locati	ion
Allen Street No. 1 (Office of Secretary)	$_{-}$ San	Juan
Allen Street No. 2	$_{-}$ San	Juan
Allen Street No. 3	San	Juan
Allen Street No. 5	$_{-}$ San	Juan
Boys' Charity School, Santurce	$_{-}$ San	Juan
Captain of Port Building		
Diputación Building		
Executive Mansion	$_{-}$ San	Juan
Girls' Charity School, Santurce	$_{-}$ San	Juan
Insane Asylum	$_{-}$ San	Juan
Intendencia Bulding		
Leper Colony, Goat Island	$_{-}$ San	Juan
Military Ovens, Marina		
Military Hospital, San Sebastián Street	San	Juan
Old House of Charity Sisters, annex to Military Hospital, facing		
Infantry Barracks	San	Juan
Pabellón de San Juan		
Police Barracks, Seboruco	San	Juan
Polvorín Building, Puerta de Tierra (leased)	San	Juan

Public buildings throughout the island of Porto Rico pertaining to the insular government - Con.

Description Polvorín Storehouse, Sol Street	Location San Juan
Public Works Storehouse, Marina (leased)	San Juan
San Francisco Barracks	
San Francisco Street No. 60	
Tinglado Shed, Marina	
Convalescencia Building and Park	
Hato Rey Police Barracks	
Police Barracks	
Government Building	
Cayey-Guayama Roadhouse No. 10 (summer residence of	Gov-
ernor)	Cavev
Blind Asylum	
Infantry Barracks	
Military Hospital	
Office of Captain of the Port, Playa	
Old Fort at Ponce Playa	
Public Works Storehouse	
Public Works Storehouse (leased)	Ponce
Old Custom House	
Old Guard House	
Old Guard House	
Ruined Guard House	
Captain of Port Building	
Experiment Station Buildings	
Laboratory Building	
Military Barracks	
Military Hospital	
Public Works Storehouse, Playa	
Reform School Building	
Captain of Port Building	
Old Guard House	
District Court Building	
District Jail Building	
Old Custom House	Faiardo
Old Custom House	
Government Building	Humacao
Old Custom House	Arroyo
Irrigation Office Building	Guavama
Seven (7) Cottages at Irrigation Camp	Guavama
One (1) Gate Keeper's House	Patillas Dam
One (1) Gate Keeper's HouseT	Toro Negro Dam
One (1) Gate Keeper's House	
One (1) Gate Keeper's House	
One (1) Watchman's House	Carite Dam
Fort at Isabel 2*	
House of Delegation (old)	
Government Building	Culebra
Public Cistern	

List of highways comprising the insular road system

List of insular roads

Section.	Kilometers
San Juan-Ponce Playa	134.0
Río Piedras-Cataño	6. 0
Cataño-Bayamón	7. 5
Bayamón–Vega Alta	23. 5
Vega Alta-Vega Baja	
Vega Baja-Manatí	12.0
Arecibo-Camuy	
Camuy-Aguadilla	42.2
Aguadilla-Aguada	
Añasco-Mayagüez	
Mayagüez-San Germán	
San Germán-Sabana Grande	
Sabana Grande-Yauco	
Peñuelas-Ponce	
Ponce-Guayama	
Guayama-Arroyo	
Arroyo-Patillas	
Patillas-Maunabo	
Maunabo-Yabucoa	
Yabucoa-Humacao	
Humacao-Humacao Playa	
Humacao Playa-Naguabo Playa	
Naguabo Playa-Naguabo	
Naguabo Playa-Fajardo	
Fajardo-Luquillo	10.5
Luquillo-Río Grande	14. 0
Canóvanas-Loíza	4. 5
Río Grande-Río Piedras	
Cayey-Guayama	27. 0
Caguas-Aguas Buenas	9. 5
Caguas-Humacao	29. 0
Comerío-Barranquitas	
Ponce-Arecibo	
Caguas–San Lorenzo	
San Lorenzo-Las Piedras	
Aguadilla-Lares Lares-Adjuntas	
	27. 0
Bayamón-Comerío	
Corozal-Barros Manatí-Ciales	
Ciales-Juana Díaz	
Mayagüez-Las Marías	10.2
Lares-Arecibo	
Consumo-Maricao	11. 6

List of insular roads—Continued.	
	Kilometers_
Barros-Barranquitas	
Yauco Road No. 14	7.5
Cabo Rojo Road No. 2	5.8
San Germán-Lajas	2.0
Road No. 11-Morovis	11.7
Road No. 9-Naranjito	1.0
Road No. 1-Coamo Springs	5.0
Las Cruces-Cidra	8. 2
Road No. 3-Trujillo Alto	7.0
Mayagüez–Las Vegas	
Naguabo-Juncos	
Añasco-San Sebastián	3. 0
Cabo Rojo-San Germán	
Vega Baja-Morovis	
Viegues Road	
•	
$\operatorname{Total}_{}$	1,010.4
West India and Panama Telegraph Company, Limited.	
Rates Payable in United States Currency.	•
To the West Indies, Etc.	
A 11.	Per word.
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Georgetown	1.27
Other points	1.29°
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Haiti, via Santiago:	
Mole St. Nicholas	1.10
Port-au-Prince and Cape Haiti	1.35
Other points	1.85
Jamaica:	
Kingston and Holland Bay	. 84
Other points	. 88
Martinique	. 52
Panama and Canal Zone	. 83

San Cristóbal

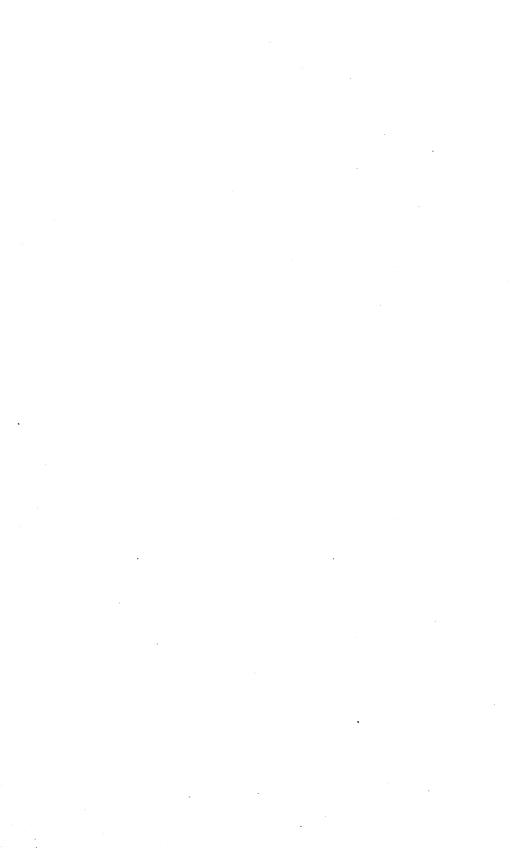
Santa Cruz (Christiansted)_____

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REGISTER OF PORTO RICO.

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rote, Maracaibo, Port la Mar, Puerto Cabello, and other points	1. 33
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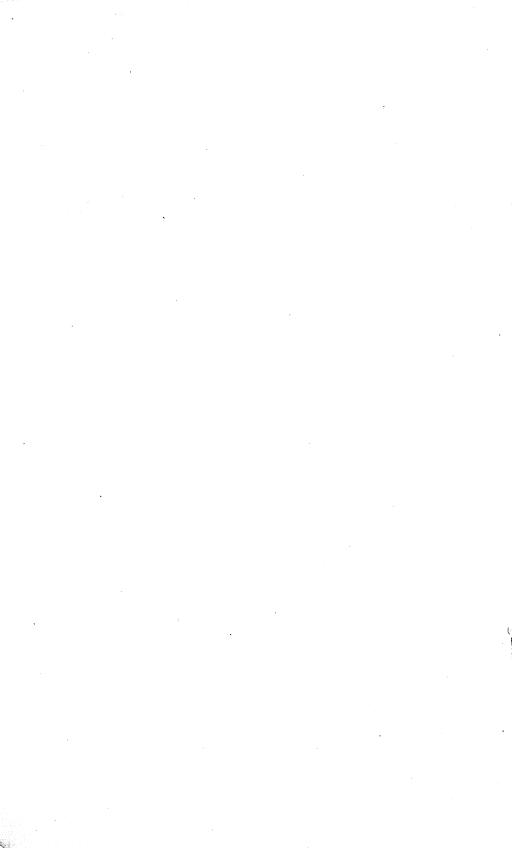
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